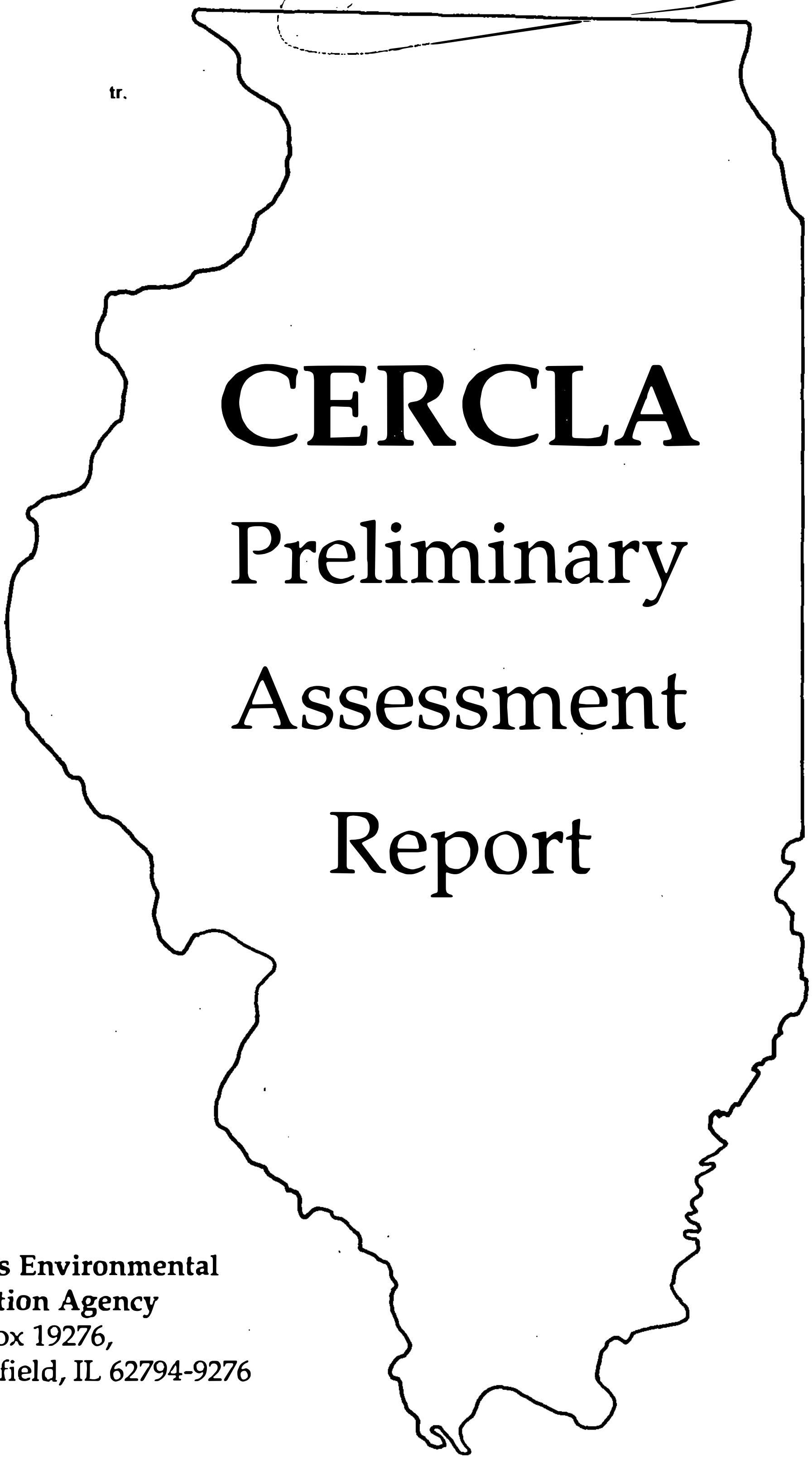
L1110900002--McHENRY COUNTY
SOUTHERN CALIFORNIA CHEMICAL COMPANY
ILD 059483081

5E0301-A0102

Med- GYW
2/28/90
State
Lead

950092



CERCLA
Preliminary Assessment Report

Illinois Environmental
Protection Agency
P.O. Box 19276,
Springfield, IL 62794-9276

Confidential Material May be Enclosed

EXECUTIVE SUMMARY

The Southern California Chemical Company, Incorporated is located southeast of Union, Illinois and within the corporate boundary of Unin. The facility occupies 2.5 acres of land boarded on the north by Jefferson Street, south by the Chicago and Northwestern Railroad tracks, east by private property and west by the Solarcrete Corporation. The site is situated in the NE1/4, NE1/4, NW1/4, SE1/4, Section 4, T.43N.-R.6E. in McHenry County, Illinois

This facility, consisting of four buildings with approximately 24,000 square feet, had been utilized as a grain plant and then a milk plant prior to being leased to Southern California Chemical in 1970. Plant operations began in October 1972 and S.C.C. purchased the facility in 1982.

The Union facility manufactures inorganic chemicals, proprietary and patented specialty products used in various industries, such as aerospace and electronics. Some of these proprietary products include solder strippers, brighteners, conditioners, and most types of etchants. The SCC's sales-service program has included routine customer return and reuse of products since 1958.

SCC's Union facility's hazardous waste storage capacity consists of six aboveground storage tanks (6,000-10,000 gallon capacity each) and potential storage capacity for 1,200 55-gallon drums (48,000 gallons). The drums are stored in two Hazardous Waste Containment Areas; one located in the main building with a capacity of 320 drums, and other located in Building C (see Attachment 1) having a capacity of 880 drums. All six tanks are fiber reinforced plastic tanks fabricated circa 1979. These tanks and drum storage areas are being utilized (on as-needed basis) to store spent cupric chloride and cupric ammonium chloride solutions which are characteristic hazardous wastes. SCC utilizes cupric chloride and cupric ammonium chloride solution off site as feedstocks in the manufacture of the company's patented continuous ammonia etchants, copper sulfate pentahydrate, and copper oxide. These substances are used to etch printed circuit boards. Spent cupric chloride and cupric ammonium chloride generated from the electronics industry are transported to the Union facility for shipment to other reprocessing facilities in Sumter, South Carolina and Garland, Texas. The maximum capacity of hazardous waste stored at the Union facility is listed on Table 1. This is approximately 1%-10% of the total waste reclaimed by the Company as a whole.

The waste management units at this facility are six aboveground storage tanks and two drum storage areas. Five of the aboveground tanks are utilized for storage of spent cupric ammonium chloride, while the remaining aboveground tank is utilized for storage of spent cupric chloride. The drum storage areas are also utilized for storage of these two materials.

Spent cupric ammonium chloride solution has the following characteristics: aqueous basic solution (pH = 8 to 10), 16-24 ounces of metallic copper per gallon of solution, 32-38 percent $Cu(NH_3)Cl_2$, 1-2 percent NH_3/NH_4Cl, and approximately 60 percent water. Cupric ammonium chloride is corrosive and has the EPA Hazardous Waste Numbers of D002 and D008. Spent cupric chloride solution has the following characteristics: aqueous acidic solution (pH usually less than 2) of CuCl with 1-2 percent of hydrochloric acid. Cupric

chloride solution is corrosive and has the EPA Hazardous Waste Number D002. Cupric ammonium chloride and cupric chloride are considered corrosive (D002), as they will corrode steel at the rate of more than 0.635 mm per year. Analytic results of samples taken from spent cupric ammonium chloride and cupric chloride tanks are shown in Attachment 2.

Three storage tanks are enclosed in Building A, along with Hazardous Waste Drum Containment Area #1 (see Attachment 3), and the remaining three tanks and Hazardous Waste Drum Containment Area #2 are enclosed in Building C (see Attachment 3). Building C has been modified so that the entire building is contained using the truck loading dock as part of the containment.

The floor of both buildings consists of 10 inches of concrete. A 2-foot high concrete dike also surrounds the tanks in Building A. The tanks in Building C are diked as mentioned above. The drums (when in use) are stacked on pallets. The maximum containment capacity of the diked area is approximately 94,000 gallons.

Descriptions of the waste management units on site are as follows:

Tank S-3 (S-02; 10,000 G)

Dimensions: 11 feet, 8 inches diameter by 12 feet, 5 inches height

Tank S-3 is a 10,000-gallon tank. It is constructed of fiberglass reinforced plastic (FRP), and is used for storage of copper chloride prior to reprocessing. Secondary containment for Tank S-3 is provided by a 2-foot tall concrete curb, which is shared with several other tanks. The location of Tank S-3 within the facility is indicated on Attachment 3.

Tank F-7 (S-02; 10,000 G)

Dimensions: 11 feet, 8 inches diameter by 12 feet, 5 inches height

Tank F-7 is a 10,000 gallon tank. It is constructed of FRP, and is used for storage of alkaline etchant (cupric ammonium chloride). Secondary containment for Tank F-7 is provided by a 2-foot tall concrete curb, which is shared with several other tanks. The location of Tank F-7 is indicated on Attachment 3.

Tank F-3 (S-02; 10,000 G)

Dimensions: 11 feet, 8 inches diameter by 12 feet, 5 inches height

Tank F-3 is a 10,000-gallon tank. It is constructed of FRP, and is used for storage of alkaline etchant. Secondary containment for Tank F-3 is provided by a 2-foot tall concrete curb, which is shared with several other tanks. The location of Tank F-3 is indicated on Attachment 3.

Tank B-1 (S-02; 6,000 G)

Dimensions: 7 feet, 10 inches diameter by 16 feet, 9 inches height

Tank B-1 is a 6,000 gallon tank constructed of FRP. It is located in Building C, as indicated on Attachment 3. Secondary containment for this tank is provided by a 6-inch concrete curb along the perimeter of Building C and the shipping ramp structure. An automatic sump pump directs collected precipitation from the shipping dock to the ground behind the facility.

Tanks B-2 and J-1 (S-02; 9,200 G Each)

Dimensions: 9 feet, 10 inches diameter by 16 feet height

Tanks B-2 and J-1 are 9,200-gallon tanks constructed of FRP. They are located in Building C, as indicated on Attachment 3. Secondary containment for these tanks is provided by a 6-inch concrete curb along the perimeter of Building C and the shipping ramp structure. An automatic sump pump directs collected precipitation from the shipping dock to the ground behind the facility.

DS-1 (S-01; 12,800 G)

Drum Storage Area Number 1 (DS-1) is located within Building A, as indicated on Attachment 3. The storage area is not provided with secondary containment, but it is located inside the building on a large concrete slab.

DS-2 (S-01; 35,200 G)

Drum Storage Area Number 2 (DS-2) is located within Building C, as indicated on Attachment 3. DS-2 is provided with secondary containment, along with Tanks B-1, B-2, and J-1.

The site also contained 2 formed concrete 60' x 50' x 6' evaporation basins to the east of the facility which had been used as setting basins. Each basin held water and copper sulfate sludge. Both basins were demolished and backfilled with soil/sand in 1988 after being idle for nearly 5 years. Closure of the basins was determined to be a clean closure. Prior to closure, area residents complained that the basins leaked and were contaminating groundwater and causing trees north of the facility to die because of excessive copper uptake. No leaks had ever been detected but high copper levels were found in the Box Elder trees and soil across the street and in the schoolyard near the plant. The company did resod a portion of the school yard. Also, Union Public Well #3 was shut down and has not been used since spring 1986 because of high chloride levels. S.C.C. is one of the suspected contaminant sources. Well #3 is located 1/3 mile northwest of S.C.C., total depth being 80 feet and cased to 60 feet into sand. Well No. 2 located 200' east of Well 3, having a total depth of 192 feet and cased to 150 feet into maquoketa shale, has not been affected. Throughout the company's history there have been numerous ammonia releases inside the plant which have been subsequently vented to the outside atmosphere. Each release has prompted complaints by area residents. Two serious releases have occurred in the past, one in 1975 another in 1977. A spill of anhydrous ammonia occurred in June 1975 when a tank valve ruptured and spilled approximately 6000 gallons which

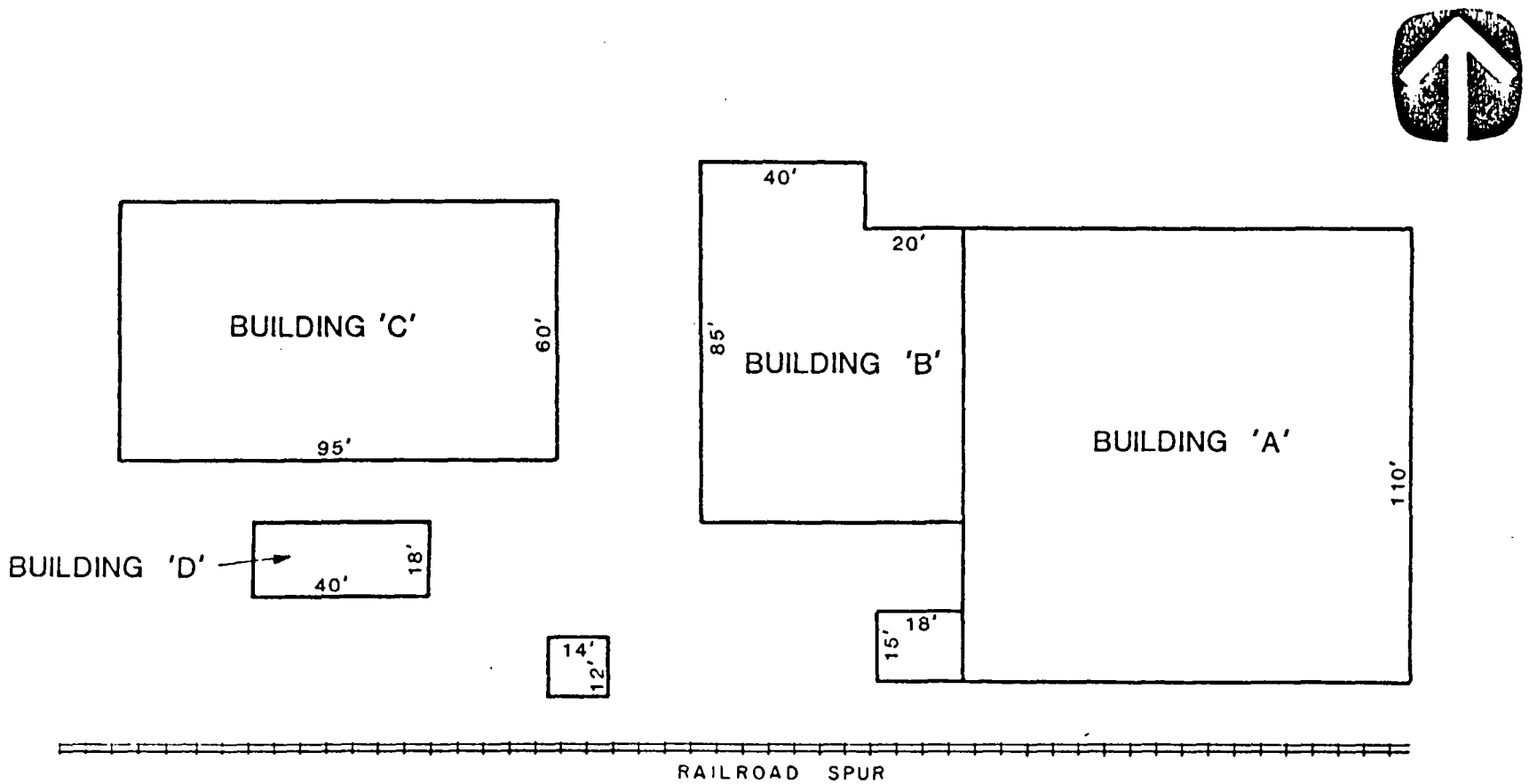
prompted an evacuation of the immediate area. In July 1977 an NaOH tank was being pressurized, apparently became over-pressurized and exploded when the pressure relief valve failed.

The lid blew through the roof rupturing ammonia and HCL lines. Approximately 600 gallons of NaOH was discharged on the plant floor. An evacuation of 20 homes took place.

The plant has had a continuous inspection rating of poor due to the sloppy "housekeeping" practices over the years.

Based on the history of the plant, further investigation should take place. The site is given a medium priority rating.

KC:cec/2849k,62-65



ATTACHMENT 1
FACILITY LAYOUT

SOUTHERN CALIFORNIA
CHEMICAL CO., INC.
UNION, ILLINOIS

0 50 100 FEET

TABLE 1

STORAGE AMOUNTS FOR WASTE MANAGEMENT UNITS (WMUs)

Cupric Ammonium Chloride

WMU	Process Code	Permit Capacity (gallons)	Maximum Stored (gallons)
F-3	S-02	10,000	9,000
B-1	S-02	6,000	5,400
B-2	S-02	9,200	8,280
J-1	S-02	9,200	8,280
F-7	S-02	10,000	9,000
DS2	S-01	35,200	35,200

Cupric Chloride

WMU	Process Code	Permit Capacity (gallons)	Maximum Stored (gallons)
S-3	S-02	10,000	9,000
DS1	S-01	12,800	12,800

aqualab inc.
3548 35th St.
Rockford IL 61109
815-874-2171

ATTACHMENT 2

ANALYTICAL REPORT

Ms. Jeri Figi
SOUTHERN CALIFORNIA CHEMICAL CO
17415 Jefferson
P.O. Box 432
Union IL 60180

28 April 1986
Sample No. 39481

SAMPLE DESCRIPTION: Spent alkaline etchant (T-1)
P.O. 26994

Date Taken: 03-27-86

Date Received: 03-31-86

RCRA Hazardous Waste Determination

Corrosivity			
	pH	9.36	units
Ignitability			
	Flash Point	No Flash	@ B.P. (183F)
Reactivity and Totals			
	Total Cyanide	0.684	ug/g
	Reactive Cyanide	0.071	ug/g
	Total Sulfide	0.26	ug/g
	Reactive Sulfide	0.07	ug/g
E.P. Toxicity			
	Arsenic	<0.10	mg/L
	Barium	1.43	mg/L
	Cadmium	0.001	mg/L
	Chromium	0.057	mg/L
	Lead	0.04	mg/L
	Mercury	0.013	mg/L
	Selenium	<0.10	mg/L
	Silver	0.011	mg/L
Totals			
	Copper	92,000.	ug/g
Other Characteristics			
	Density	71.17	lbs/ft3
	Phenol	0.037	ug/g
	Solids,total	30.72	%
	Alkalinity	35.6	%
	Paint Filter	Contains Liquid	
	Nitrogen,NH4	46.08	mg/L
	TOC	61.0	mg/L
	Chloride	17.	%

Tom Gartner

aqualab inc.
3548 35th St.
Rockford IL 61109
815-874-2171

ANALYTICAL REPORT

Ms. Jeri Figi
SOUTHERN CALIFORNIA CHEMICAL CO
17415 Jefferson
P.O. Box 432
Union IL 60180

28 April 1986
Sample No. 39480

SAMPLE DESCRIPTION: Spent alkaline etchant (ESS spent)
P.O. 26994
Date Taken: 03-28-86

Date Received: 03-31-86

RCRA Hazardous Waste Determination

Corrosivity			
	pH	9.20	units
Ignitability			
	Flash Point	No Flash	@ B.P. (180F)
Reactivity and Totals			
	Total Cyanide	0.684	ug/g
	Reactive Cyanide	0.071	ug/g
	Total Sulfide	0.17	ug/g
	Reactive Sulfide	0.03	ug/g
E.P. Toxicity			
	Arsenic	<0.10	mg/L
	Barium	1.25	mg/L
	Cadmium	<0.001	mg/L
	Chromium	0.026	mg/L
	Lead	0.12	mg/L
	Mercury	0.10	mg/L
	Selenium	<0.10	mg/L
	Silver	0.010	mg/L
Totals			
	Copper	145,000.	ug/g
Other Characteristics			
	Density	74.67	lbs/ft3
	Phenol	0.055	ug/g
	Solids,total	35.85	%
	Alkalinity	55.	%
	Paint Filter	Contains Liquid	
	Nitrogen,NH4	58.92	mg/L
	TOC	72.5	mg/L
	Chloride	19.4	%

Tony Gartner

aqualab inc.

JUL 21 1986 RECEIVED

ANALYTICAL REPORT

Jerri Figi
SOUTHERN CALIFORNIA TEST
17415 Jefferson
P.O. Box 432
Union IL 60180

07-19-86
Sample No: 41039

SAMPLE DESCRIPTION: SEE BELOW

Date Taken: 06-17-86

Date Received: 06-19-86

SAMPLE NO. 41039 SAMPLE DESCRIPTION Spent cupric chloride

Chloride	44	%
Density, Nonaqueous	79.16	lb/ft3
Nitrogen, Ammonia	<0.06	ug/g
Phenol	0.25	ug/g
Total Organic Carbon (TOC)	3	mg/L
Water (Paint Filter)	Contains Free Liquid	
Copper	117000.	ug/g
Corrosivity (pH)	1.18	units
Ignitability (Flash Point)	No Flash @ B.P.(190)	Degree F
Reactive Sulfide	<0.25	ug/g
Reactive Cyanide	<0.025	ug/g
EP Tox - Arsenic	<0.01	mg/L
EP Tox - Barium	0.41	mg/L
EP Tox - Cadmium	0.017	mg/L
EP Tox - Chromium	0.170	mg/L
EP Tox - Lead	0.33	mg/L
EP Tox - Mercury	<0.001	mg/L
EP Tox - Selenium	<0.01	mg/L
EP Tox - Silver	<0.001	mg/L
Acidity (CaC03)	43	%

Toni Gartner, Manager
Rockford Division

Corporate Office: 850 West Bartlett Rd. Bartlett IL 60103 312-289-3100

Austin Division
9909 Burnet Rd.

Bartlett Division
850 West Bartlett Rd.

Rosner/Runyon Division
222 South Morgan St.

Rockford Division
3548 35th St.

aqualab inc.

ANALYTICAL REPORT

Jerri Figi
SOUTHERN CALIFORNIA TEST
17415 Jefferson
P.O. Box 432
Union IL 60180

07-19-86
Sample No: 41039

SAMPLE DESCRIPTION: SEE BELOW

Date Taken: 06-17-86

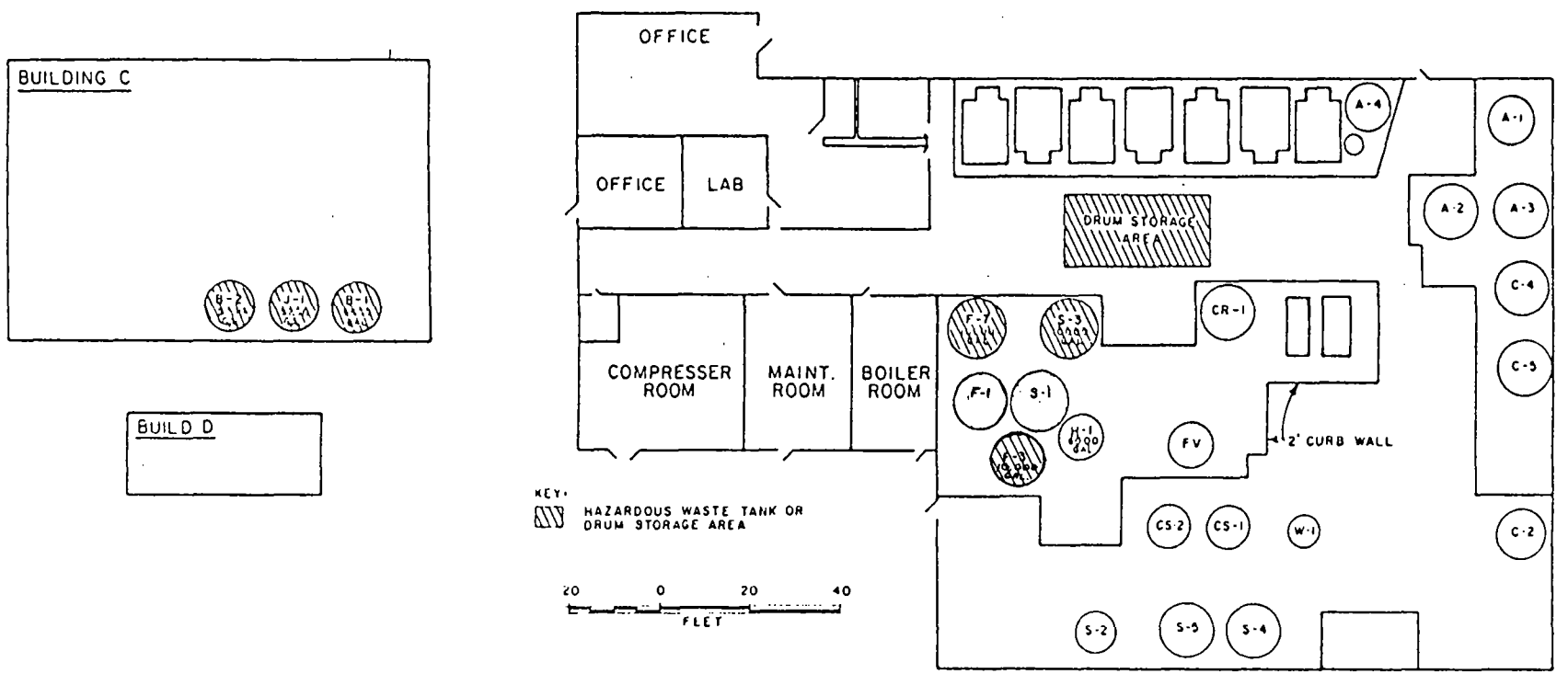
Date Received: 06-19-86

SAMPLE NO. 41039 SAMPLE DESCRIPTION Spent cupric chloride

Cyanide, Total	<0.05	ug/g
Sulfide	<0.1	ug/g
Solids, Total(non-aqueous)	25.92	%
Water (Paint Filter)	Contains Free Liquid	

T. Gartner

Toni Gartner, Manager
Rockford Division



ATTACHMENT 3
TANK AND DRUM STORAGE AREA
LOCATION MAP

SOUTHERN CALIFORNIA
CHEMICAL CO., INC.
UNION, ILLINOIS

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

EPA

I. IDENTIFICATION
01 STATE: IL | 02 SITE NUMBER: 059483081

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
SOUTHERN CALIFORNIA CHEMICAL CO. INC.	17415 JEFFERSON STREET				
03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
UNION	IL	60180	McHENRY	111	
09 COORDINATES LATITUDE: 42 13 40.0	LONGITUDE: 088 32 02.0	MARENGO SOUTH 7.5 MIN QUAD (26A)			

10 DIRECTIONS TO SITE (Starting from nearest public road)
ILLINOIS ROUTE 20 TO UNION ROAD EAST TO INTERSECTIONS OF NORTHROP ROAD, (STOP SIGN). CONTINUE EAST APPROXIMATELY 1/2 MILE TO SITE ON SOUTH SIDE OF ROAD.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)			
SOUTHERN CALIFORNIA CHEMICAL CO., INC	8861 DICE ROAD			
03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER	
SANTA FE SPRINGS	CA	90670	(213)698-8036	
07 OPERATOR (If known and different from owner)	08 STREET (Business, mailing, residential)			
SOUTHERN CALIFORNIA CHEMICAL CO., INC	17415 JEFFERSON STREET			
09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER	
UNION	IL	60180	(815)923-2136	

13 TYPE OF OWNERSHIP (Check one)
☒ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)
☒ A. RCRA 3001 DATE RECEIVED: 10/10/80 (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: / / (MONTH DAY YEAR) ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☒ YES ☐ NO DATE 3/16/78 (MONTH DAY YEAR) 5-1-87

BY (Check all that apply)
☐ A. EPA ☐ B. EPA CONTRACTOR ☒ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)
CONTRACTOR NAME(S): _____

02 SITE STATUS (Check one)	03 YEARS OF OPERATION		
☒ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN	1970 (BEGINNING YEAR)	OPERATING PRESENTLY (ENDING YEAR)	☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
HEAVY METALS (TOXIC/PERSISTANT)
ACIDS (CORROSIVE)
BASES (CORROSIVE)

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
GROUNDWATER (POPULATION/ENVIRONMENT)
SURFACE WATER (POPULATION/ENVIRONMENT)
VAPOR RELEASE (POPULATION/ENVIRONMENT)

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)
☐ A. HIGH (Inspection required promptly) ☒ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NUMBER
MARK W. HOLTZAPFEL	SOUTHERN CAL. CHEM. CO. INC. PLANT MGR.	(815)923-2136

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
KENNETH W. CORKILL	IEPA	RPMS	(217)782-6760	5/19/89 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	059483081

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- X A SOLID
- B POWDER, FINES
- X C SLUDGE
- E SLURRY
- X F LIQUID
- G GAS
- D OTHER (Specify)

02 WASTE QUANTITY AT SITE
(Measures of waste quantities must be independent)

- TONS
- CUBIC YARDS ≈ 670
- NO OF DRUMS ≈ 1940

03 WASTE CHARACTERISTICS (Check all that apply)

- X A TOXIC
- X B CORROSIVE
- C RADIOACTIVE
- X D PERSISTENT
- E SOLUBLE
- F INFECTIOUS
- G FLAMMABLE
- H IGNITABLE
- I HIGHLY VOLATILE
- J EXPLOSIVE
- K REACTIVE
- L INCOMPATIBLE
- M NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	≈670	YD^3	FROM 2 CONCRETE SETTLING BASINS
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS	21,800	GAL	SPENT CUPRIC CHLORIDE SOLUTION
BAS	BASES	75,160	GAL.	SPENT CUPRIC AMMONIUM CHLORIDE SOLUTION
MES	HEAVY METALS	UNKNOWN	UNKNOWN	CONTAINED IN ABOVE SOLUTIONS.

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
ACD	CUPRIC CHLORIDE	7447-39-4	DRUM/TANK/FLOOR/SOIL		
BAS	CUPRIC AMMONIUM CHLORIDE		DRUM/TANK/FLOOR/SOIL		
ACD	CUPRIC SULFATE	7758-98-7	DRUM/TANK		
ACD	CUPRIC OXIDE	1317-38-0	DRUM		
MES	LEAD		DRUM/PAD/SOIL	675	PPM
MES	COPPER		DRUM/TANK/FLOOR/SOIL	429500	PPM

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

IEPA - LAND FILES, RCRA - FDS - COMPLIANCE - PERMIT

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: ID | 02 SITE NUMBER: 059483081

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 6700
02 [ ] OBSERVED (DATE ____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

CHLORIDE CONTENT IN UNION'S WELL #1 FORCED ITS CLOSURE. HIGH COPPER CONTENT IN WOOD OF BOX ELDER TREES & SOIL NEAR THEM INDICATE AVAILABILITY IN EXCESSIVE AMOUNTS. TREES & SOIL WERE/ARE LOCATED ON THE NORTH SIDE OF EAST JEFFERSON ACROSS FROM THE SUBJECT SITE. WELL #1 IS LOCATED 1/4 MILE FROM SITE. GROUNDWATER FLOWS NORTH - NORTHWEST.

01 [X] B. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 0
02 [ ] OBSERVED (DATE: ____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

AN AREA EAST OF THE PLANT HAS, IN THE PAST BEEN PERMITTED FOR DISPOSAL OF FIBERGLASS CIRCUIT BOARDS ONLY. SITE DRAINAGE IS TO THIS AREA. IT IS A SWAMPY AREA WITH NO STREAM OUTLET. THERE IS NO USE OF SURFACE WATER. STRESSED VEGETATION IN AREA OR NO VEGETATION AT ALL.

01 [X] C. CONTAMINATION OF AIR
03 POPULATION POTENTIALLY AFFECTED: 6700
02 [ ] OBSERVED (DATE: ____) [ ] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

THERE HAVE BEEN NUMEROUS AMMONIA RELEASES WHICH HAVE AFFECTED AREA RESIDENTS & A GRADE SCHOOL ACROSS THE STREET FROM THE SITE. AIR MONITORS ON SITE HAVE RECORDED THESE EVENTS.

01 [ ] D. FIRE/EXPLOSIVE CONDITIONS
03 POPULATION POTENTIALLY AFFECTED: ____
02 [ ] OBSERVED (DATE: ____) [ ] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

01 [X] E. DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: 682
02 [ ] OBSERVED (DATE: ____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

CONTAMINATION NOTED ALONG THE RAILROAD SPUR & MAIN TRACKS INDICATE THAT DIRECT CONTACT IS HIGHLY POSSIBLE. DISCOLORED SOIL, STRESSED OR DEAD VEGETATION, CORRODED RAILS ON THE RAILROAD SPUR AND PARTIALLY BURIED CIRCUIT BOARDS WERE NOTED OUTSIDE THE FENCED SITE.

01 [X] F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: 2.5 (Acres)
02 [ ] OBSERVED (DATE: ____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

SOIL SAMPLES HAVE INDICATED HIGH LEAD & COPPER CONTENT IN THE VICINITY OF THE SITE & ON SITE.

01 [X] G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 6700
02 [ ] OBSERVED (DATE ____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

SEE "A"

01 [X] H. WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: 10
02 [ ] OBSERVED (DATE ____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

WORKERS ARE POTENTIALLY EXPOSED TO SPENT CUPRIC AMMONIUM CHLORIDE SOLUTION & SPENT CUPRIC CHLORIDE SOLUTION WHEN THEY ARE DELIVERED TO THE PLANT & TRANSFERRED FROM TANK TRUCKS TO THE STORAGE TANKS.

01 [ ] I. POPULATION EXPOSURE/INJURY
03 POPULATION POTENTIALLY AFFECTED: ____
02 [ ] OBSERVED (DATE: ____) [ ] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: 14D | 02 SITE NUMBER: 059483081

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 [X] J. DAMAGE TO FLORA — 02 [X] OBSERVED (DATE: VARIOUS INSPEC. DATING FROM 1978) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
INSPECTIONS NOTED STRESSED OR DEAD VEGETATION ON & OFF SITE.

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 [X] M. UNSTABLE CONTAINMENT OF WASTES (Spills, runoff, standing liquids, leaking drums) — 02 [X] OBSERVED (DATE: VARIOUS INSPECTIONS DATING FROM 1978) [X] POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 6700 — 04 NARRATIVE DESCRIPTION
TANKS & DRUMS HAVE THE POTENTIAL TO LEAK FROM UNINTENTIONAL PUNCTURES, CORROSION PROBLEMS OR VALVES WHICH MALFUNCTION. CONTAMINATION WAS NOTED ON THE CONCRETE PAD OUTSIDE THE FACILITY TO THE SOUTH AND ON THE FLOOR INSIDE THE BUILDINGS AROUND THE TANKS. SOLID DRUMED MATERIAL WAS NOTED ON THE FLOOR FROM SPLIT OR BROKEN DRUMS.

01 [X] N. DAMAGE TO OFFSITE PROPERTY — 02 [X] OBSERVED (DATE: VARIOUS INSPECTIONS DATING FROM 1978) [X] POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
STAINS & CORROSION WAS NOTED DURING VARIOUS INSPECTIONS ON THE BUILDING & GROUND TO THE WEST OF S.C.C.'s STRUCTURES.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 [X] P. ILLEGAL/UNAUTHORIZED DUMPING — 02 [X] OBSERVED (DATE: 5/1979) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
DUMPING OF WOOD, TREES, CONCRETE, ASPHALT, DIRT ETC. ON PROPERTY EAST OF SITE. IT WAS ONLY PERMITTED FOR DISPOSAL OF FIBERGLASS CIRCUIT BOARDS.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

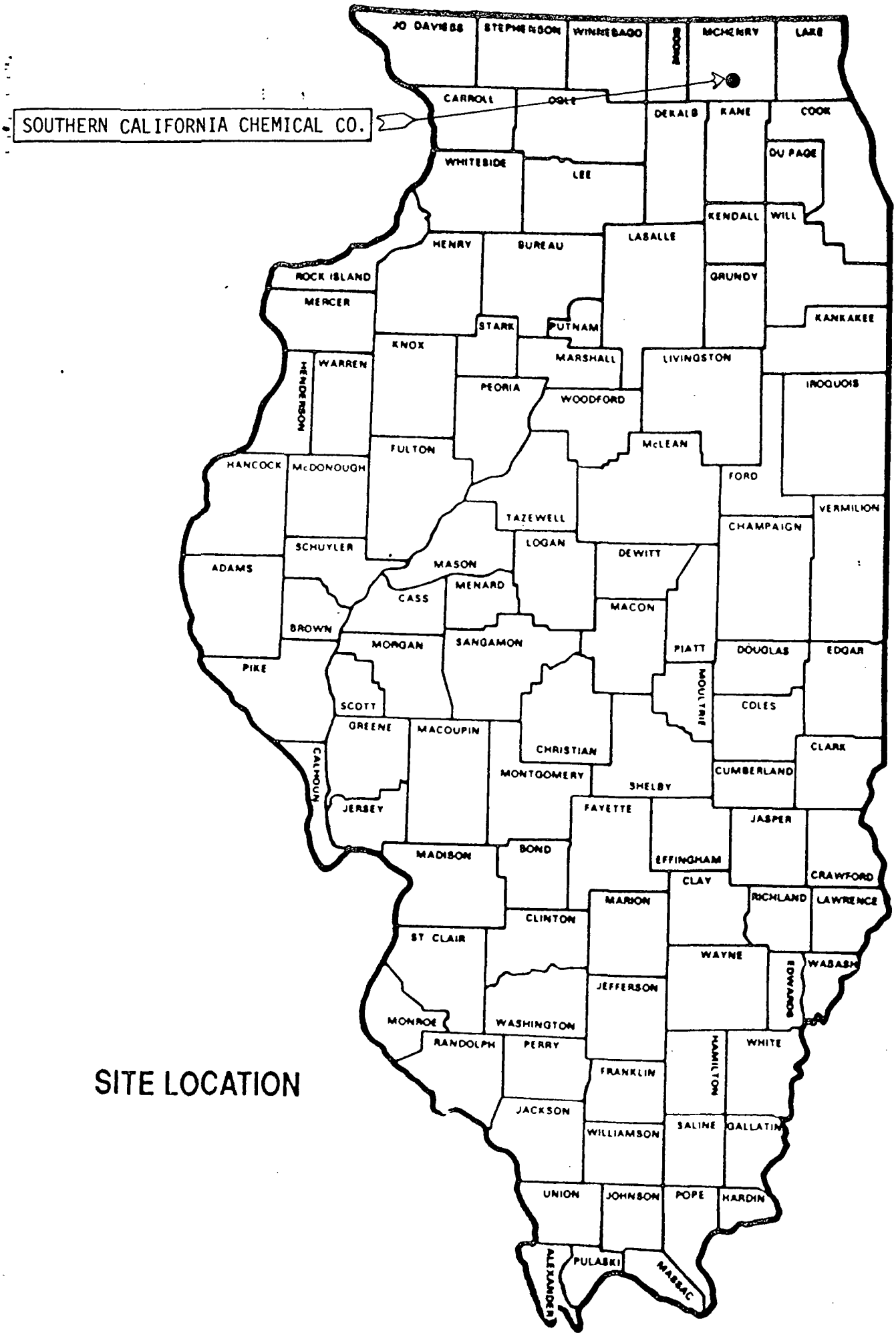
III. TOTAL POPULATION POTENTIALLY AFFECTED: 6700

IV. COMMENTS

MANY PORTIONS OF THE FACILITY'S BUILDINGS HAVE BEEN CORRODED QUITE SEVERELY INCLUDING CONCRETE & METAL PORTIONS OF THESE STRUCTURES. A RAIL ON THE RAILROAD SPUR HAD BEEN NEARLY CORRODED THROUGH BY THE PRODUCTS RECEIVED & SHIPPED BY THIS PLANT.

V. SOURCES OF INFORMATION (Cite specific references, e. g., state files, sample analysis, reports)

REF. PART 2 - VI
COUNTY & CITY DATA BOOK - BUREAU OF THE CENSUS
USGS WATER-RESOURCES INVESTIGATIONS REPORT 83-4048



SITE LOCATION

SDMS US EPA Region V

Imagery Insert Form

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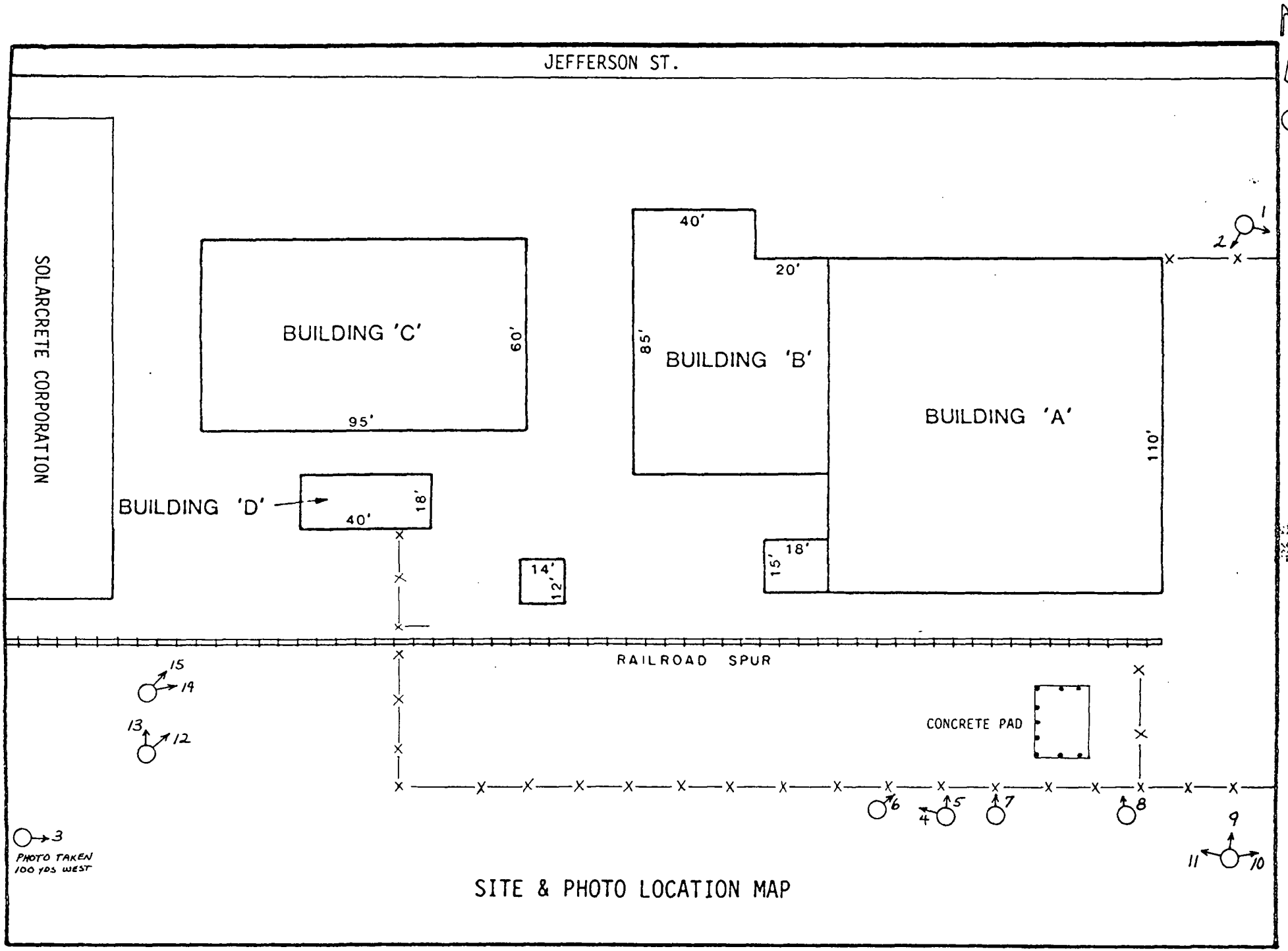
4-MILE RADIUS MAP

☐ **Other:**

(b) (9)

(b) (9)



SITE & PHOTO LOCATION MAP

DATE: 4-4-89

TIME: 10:30 AM

Photograph by:

K. CORKILL

Location: L1110900002

McHENRY CO./UNION

SOUTHERN CALIF. CHEMICAL.

Comments: Picture taken toward

EAST. OLD FILL AREA

(1)

DATE: 4-4-89

TIME: 10:35 AM

Photograph by:

K. CORKILL

Location: L1110900002

McHENRY CO./UNION

SOUTHERN CALIF. CHEMICAL

Comments: Picture taken toward

SOUTHWEST. BASINS

OCCUPPIED FOREGROUND.

NOW DEMOLISHED + NEW

FILL IN PLACE

(2)

DATE: 4-4-89

TIME: 10:45 AM

Photograph by:

K. CORKILL

Location: L1110900002

McHENRY CO./UNION

SOUTHERN CALIF. CHEMICAL

Comments: Picture taken toward

EAST. DEAD DOG

± 100-150 YARDS WEST

OF S.C.C.

(3)

DATE: 4-4-89

TIME: 10:50 AM

Photograph by:

K. CORKILL

Location: L1110900002

McHENRY Co./UNION

SOUTHERN CALIF. CHEMICAL

Comments: Picture taken toward

NORTHWEST. BEHIND

PLANT

(4)

DATE: 4-4-89

TIME: 10:50 AM

Photograph by:

K. CORKILL

Location: L1110900002

McHENRY Co./UNION

SOUTHERN CALIF. CHEMICAL

Comments: Picture taken toward

NORTH. BEHIND PLANT

(5)

DATE: 4-4-89

TIME: 10:52 AM

Photograph by:

K. CORKILL

Location: L1110900002

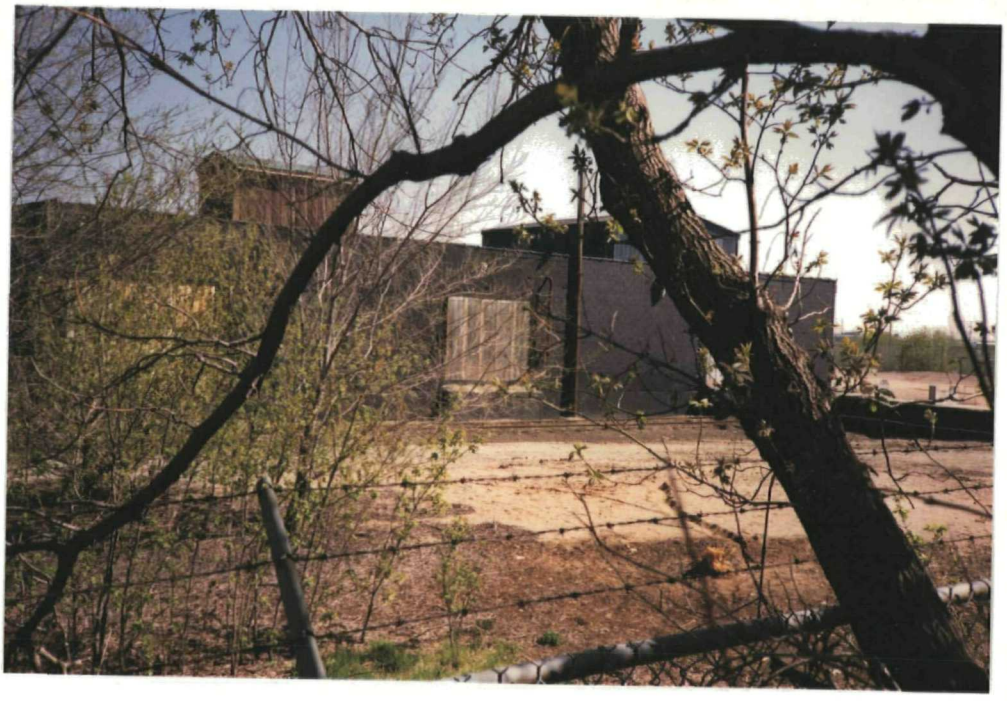
McHENRY Co./UNION

SOUTHERN CALIF. CHEMICAL

Comments: Picture taken toward

NORTHEAST. REAR OF

PLANT & RAIL SPUR.



(6)

DATE: 4-4-89

TIME: 10:55 AM

Photograph by:

K. CORKILL

Location: L1110900002

MCHENRY CO./UNION

SOUTHERN CALIF. CHEMICAL

Comments: Picture taken toward

NORTH. REAR OF PLANT

(7)

DATE: 4-4-89

TIME: 10:56 AM

Photograph by:

K. CORKILL

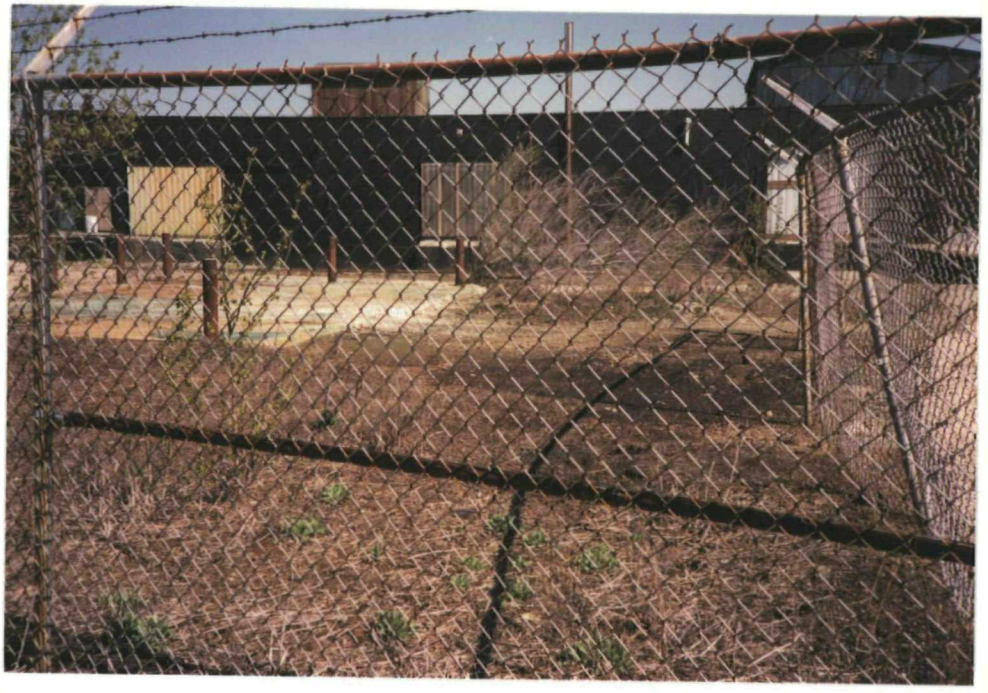
Location: L1110900002

MCHENRY CO./UNION

SOUTHERN CALIF. CHEMICAL

Comments: Picture taken toward

NORTH. REAR OF PLANT & CONCRETE STORAGE PAD.



(8)

DATE: 4-4-89

TIME: 11:00 AM

Photograph by:

K. CORKILL

Location: L1110900002

MCHENRY CO./UNION

SOUTHERN CALIF. CHEMICAL

Comments: Picture taken toward NORTH. FORMER BASIN AREA INSIDE FENCE. OUTSIDE OF FENCE LITTERED W/ PRINTED CIRCUIT BOARDS, ETC.

(9)

DATE: 4-4-89

TIME: 11:00 AM

Photograph by:

K. CORKILL

Location: L1110900002

MCHENRY CO./UNION

SOUTHERN CALIF. CHEMICAL

Comments: Picture taken toward NORTHEAST. OLD FILL AREA.

(10)

DATE: 4-4-89

TIME: 11:00 AM

Photograph by:

K. CORKILL

Location: L1110900002

MCHENRY CO./UNION

SOUTHERN CALIF. CHEMICAL

Comments: Picture taken toward

NORTHWEST. BURIED

CIRCUIT BOARDS, DRUMS

ETC.

(11)

DATE: 4-4-89

TIME: 11:10 AM

Photograph by:

K. CORKILL

Location: L1110900002

MCHENRY CO./UNION

SOUTHERN CALIF. CHEMICAL

Comments: Picture taken toward

NORTHEAST. REAR OF

PLANT AT WEST PROPERTY

LINE.

(12)

DATE: 4-4-89

TIME: 11:10 AM

Photograph by:

K. CORKILL

Location: L1110900002

MCHENRY CO./UNION

SOUTHERN CALIF. CHEMICAL

Comments: Picture taken toward

NORTH ALONG WEST

PROPERTY LINE.

(13)

DATE: 4-4-89

TIME: 11:12 AM

Photograph by:

K. CORKILL

Location: L1110900002

MCHENRY CO./UNION

SOUTHERN CALIF. CHEMICAL

Comments: Picture taken toward

EAST. GREEN & BLUE

STAINED SOIL TO THE

TOP OF THE SLOPE.

(NOT VISIBLE IN PHOTO)

(14)

DATE: 4-4-89

TIME: 11:12 AM

Photograph by:

K. CORKILL

Location: L1110900002

MCHENRY CO./UNION

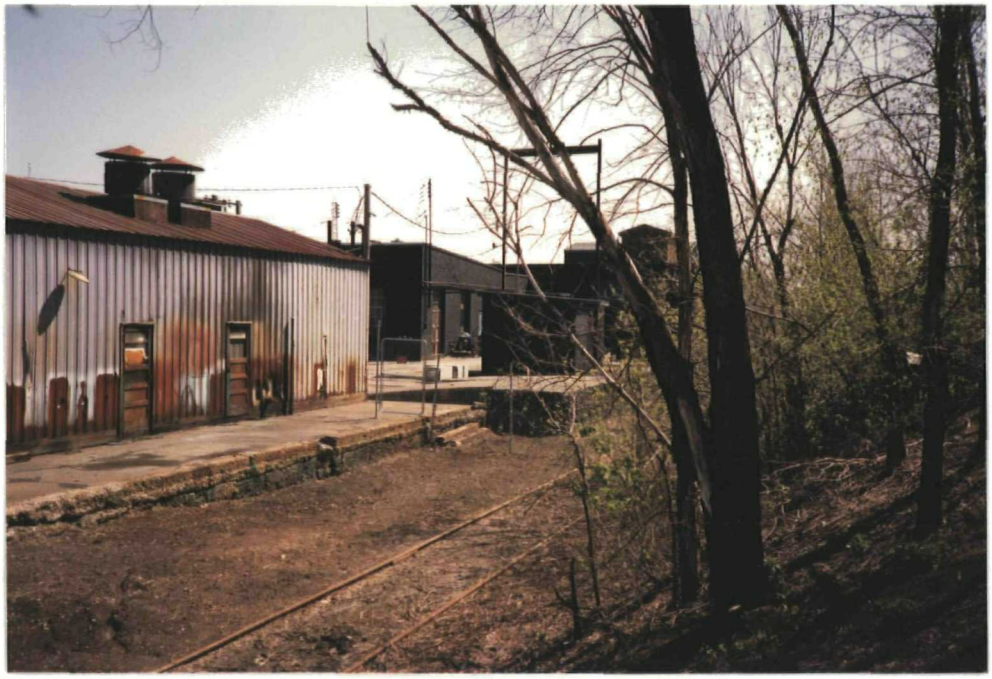
SOUTHERN CALIF. CHEMICAL

Comments: Picture taken toward

EAST-NORTHEAST. REAR OF

PLANT FROM WEST

PROPERTY LINE.



(15)

DATE: _____

TIME: _____

Photograph by:

_____

Location:

_____

_____

Comments: Picture taken toward

_____

_____

_____

_____

Supporting Documentation

THE SUMMARY DETA

PHASE ONE

*1. REMOVE
*2. REDESIG
*3. PURCHAS
*4. PURCHAS
*5. DESIGN
*6. REDESIG
*7. ELIMINA
PROCESS
*8. REDESIG
A.
B.
*9. INSTALL
SHUT DO
*10. DESIGN
HOSE HO
DISPOSA
*11. HARD PI
*12. INSTALL
13. MAKE OP
TANK.
14. INSTALL
GOOD HO
15. REPAIR/
OR SPIL
16. REDESIG

PHASE TWO

17. DESIGN,

PHASE THREE

18. DESIGN,
APPROPR
19. INSTALL

ALL ITEMS MARKED
COMPLETED AT STA
AND PHASE THREE
CONCLUSION IS TH
THE ABOVE DATES
READILY THE TIME

ILLINOIS ENVIRONMENTAL PROTECTION AGEN

RI

DATE: August 4, 1977

TO: Miles Zamco

FROM: C. B. Willard

SUBJECT: Southern California Chemical Company, I
Union, Illinois; McHenry County

Background

Southern California Chemical Company is
facility of a corporation headquartered
area. This plant recycles and refines
resells the purified solutions back to
they extract copper oxide compound res
to agricultural and wood preservative
had a ferrous/ferric choride reaction
been shut down.

The etchant recycling procedure is app
(as received) etchant feedstock stream
to a reaction vessel which is charged
in an evolution of ammonia and a suspe
the ammonia is scrubbed with HCl which
solution; the ammonium choride is intr
the spent etchant stream in the second
ammonia and air are added; the final r
saleable PCB etchant solution which is
board manufacturers.

We first became aware of this isolated
surveillance in March of 1975. During
citizens survey was performed and no s
A permit violation was noted by warnir
were received. In June of 1975 a rela
in which an anhydrous ammonia tank val
gallons of ammonia were released. We
evacuation was effected. Subsequent i
was held with local and corporate Sout
representatives and an up graded conti
and received. The confirmation of th
to Southern California August 15, 197
but also the chlorine handling system
throughout the remainder 1975 and 197
school (approximately 1 1/2 blocks awa
during the 1975 incident. We were ma

SUPPORTING DOCUMENTS

TABLE OF CONTENTS

PLEASE RECOGNIZE THAT IT IS MY PERSONAL OBJECTIVE TO SEE THAT THESE PROGRAMS ARE IMPLEMENTED AS RAPIDLY AS POSSIBLE. MY AIM IS TO FIX THE PROBLEM AND BE A GOOD NEIGHBOR. I RECOGNIZE AND UNDERSTAND THE CREDITABILITY PROBLEM WITH THE COMMUNITY AND SOLICIT YOUR SUPPORT AND GUIDANCE TO MONITOR AND CRITIQUE OUR OPERATION AND PROGRESS TOWARD THE ATTAINMENT OF OUR OBJECTIVES.

VERY TRULY YOURS,

George Galik

GEORGE GALIK
VICE-PRESIDENT
SOUTHERN CALIFORNIA CHEMICAL Co.

CC: EDWARD L. MAREK
ENVIRONMENTAL PROTECTION ENGINEER
FIELD OPERATION SECTION
DIVISION OF WATER POLLUTION CONTROL

KARL D. FRANSON
ENVIRONMENTAL PROTECTION ENGINEER
DIVISION OF AIR POLLUTION CONTROL

KATHRYN SHEEHAN NESBURG
ATTORNEY AT LAW
ENFORCEMENT SERVICES SECTION
DIVISION OF AIR POLLUTION CONTROL

MIKE POPER
ATTORNEY AT LAW

HERB FRANK
ATTORNEY AT LAW

JIM ANDRENS
CITY OF UNION

BILL FABER
CITY OF UNION

E. KING
SOUTHERN CALIFORNIA CHEMICAL Co.

D. ERNT
SOUTHERN CALIFORNIA CHEMICAL Co.

ENVIRONMENTAL PROTECTION AGENCY - STATE OF ILLINOIS

REFERENCE NUMBER 02

L P C F C 0 5 5 C
(1) (8) (9)

INSPECTION REPORT - SITE INVENTORY NO. 1 1 1 0 9 0 0 2
(11) (18)

McHenry CO. - L.P.C. Region # N Date 05/25/79
(20) (25)

Union / Southern California Chemical Letter Sent (Yes or No) Y
(Location) (Responsible Party) (26)

Samples Taken: Yes ( ) No (X) Time: From 02:10 Pm Weather 60° Clear
Ground Water( ) Surface( ) Other( ) To 02:35 Pm
Photos Taken: Yes ( ) No (X) Interviewed _____ Inspector M A H
(27) (29)

Previous Inspection 3-6-78 Previous Correspondence 6-24-77 Site Open: Yes( ) No(X)

OPERATIONAL STATUS:		TYPE OF OPERATION:				AUTHORIZATION:	
Operating	(X)	Landfill	(X)	Storage	( )	E.P.A. Permit	(X)
Temporarily Closed	( )	Random Dump	( )	Salvage	( )	Variance	( )
Closed Not Covered	( )	Other _____	( )	A.C.D.	( )	21(e)	( )
Closed and Covered	( )	Quantity Received Daily(1-6)		1 (30)		Board Order	( )
						Illegal (5)	( ) (31)

IMPROVED

SAME

DETERIORATED I S or D S D (62)

GENERAL REMARKS: Visited the site in response to a complaint (C-79-138N) about filling east of the companies building. Observed filling using wood, trees, concrete, asphalt, and dirt. Permit is for cleaned fiberglass, circuit boards only.
They may be outside their permitted 1.5 acres that were to be filled. Another inspection should be scheduled with some prior preparation to determine if they are still within the permitted area.

INTERVIEW:

DIAGRAM:

REFERENCE NUMBER 03

ENVIRONMENTAL PROTECTION AGENCY STATE OF ILLINOIS

INTER–OFFICE CORRESPONDENCE

RECEIVED

JUL 01 1980

E.P.A. — D.L.P.C.
STATE OF ILLINOIS

DATE: 6-12-80

MEMO TO: File 1110 9002

FROM: DMS

SUBJECT: McHENRY COUNTY – D.L.P.C. Inspection
UNION / SOUTHERN CALIFORNIA CHEMICAL CO.

GENERAL REMARKS: The inspection was conducted with Bob Evans, plant manager. Fiberglass is the only permitted fill material at the site. To the best of his knowledge, no fill has been placed at the site since 1977. The area has received ≈ 1½-2 ft. of cover material, per B. Evans, but

INTERVIEW: the exact amount is unknown. The plant does not intend to place any additional fill on the site, unless there is an expansion of the plant itself. An expansion of the plant is improbable in the near future. B. Evans stated that a new permit would be applied for if they desired to re-open the site, as the fill material would probably no longer consist of fiberglass. The entire disposal site was fenced, with two gates which are locked at all times, last summer. Two large hills of dirt and concrete are located at the southeast portion of the site. This dirt and concrete is to be removed, rather than used as cover, as concrete is an unpermitted fill material at this site. No refuse (fiberglass) was observed through the cover and the site is covered with weeds.

DIAGRAM:

LPC-19

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY MEMORANDUM

REFERENCE NUMBER 04

DATE: December 16, 1980

TO: Eugene Theois

FROM: J. Evans JE

SUBJECT: MC HENRY CO.-11109002 UNION/SO. CALIFORNIA CHEMICAL CO. - Pre D.E. Inspection

On December 11, 1980, I conducted a Pre D.E. Inspection of Southern California Chemical Company's storage and recovery facility located in Union, Il. Present at the time of the inspection was Rober Evans, Plant Manager.

Mr. Evans explained that the company receives approximately 1700 gallons of spent copper etching wash a day. The majority of the etching received is transported by Southern California Chemical's own special waste tankers (#0169); however, some waste is received in 55 gallon drums.

The spent solution is then flushed into the first of a series of seven 3000 gallon vats, as it undergoes a purging process. In the process, the copper is extracted in the form of copper sulfate and the remaining wash is strengthened with additional acid(s) and redistributed as etching solution. All the vats and storage tanks involved in the recycling process have a 3 foot concrete dike surrounding them and at least a 2 foot catwalk around each vat.

The company also has lab facilities to run analysis for each incoming load.

At this time I explained to Mr. Evans that the company's permit would be denied until the permit application was completed.

I have attached a copy of a "facility drawing" from California Inc. as supplement to their application.

cc: Northern Region
Bill Child
Division File ✓

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY MEMORANDUM

DATE: March 26, 1981

REFERENCE NUMBER 05

TO: Division File

FROM: Jim Wiggins

SUBJECT: McHenry County - 11109002 - Union/Southern California Chemical Co.

On March 25, 1981, a manifest compliance inspection was conducted at the subject facility at 17415 East Jefferson St., Union, Ill. 60180. Robert Evans, the Plant Manager, was contacted at the time of the inspection.

Southern California Chemical Co. reclaims spent aqua amonia solutions which are used for etching printed circuit boards. Approximately 2,000 gallons per day of spent etchant are received for processing, in both bulk and drummed form. The spent etchant undergoes a special liquid ion exchange process, during which the copper is extracted in the form of copper sulfate which is sold to agricultural industries for use. The process also yields ammonium sulfate which is also sold to agricultural industries. The etchant is then treated and redistributed to their customers for reuse.

According to Mr. Evans, a process change has resulted in a completely closed system which generates no waste, and they are now in the process of getting their customers to convert to the new system. A check of the generator application file shows, that Southern California Chemical generates four special waste streams, all of which go to chicago/CID #2 for disposal. The last shipment accepted by CID was taken on March 10, 1981, and there were two previous shipments taken in October and in November of 1980. Apparently these waste products result from customers who have not changed to the new process. In regards to incoming material, from approximately 100 clients, they have only one supplemental permit, however, they have completed applications for almost all of their customers and are now in the process of submitting them. Mr. Evans stated that Southern California Chemical has contacted their attorney and will be seeking relief from the Chapter 9 Regulations, but in the interim will obtain supplemental permits and comply with the manifest requirements.

A comprehensive manifest inspection will be scheduled at a future date to assure compliance with the Chapter 9 Regulations.

JW:prg

cc: Northern Region
Mary Drake
Bill Seltzer
Andy Vollmer

REFERENCE NUMBER 06

D.L.P.C. COMPLAINT INVESTIGATION FORM

McHenry Co 1110900 2 - C-82-32N

Union / So. Calif. Chem Co ( )

Date Received 7-13-81 By M. Heaens (By Phone) In Person By Mail

Complainant Mr Gohl Respondent So Calif Chem Co

Address Address 1715 E. Jefferson

Telephone 815-923-4139-H 312-683-2179 W Telephone 815-923-2136

Directions To Source North of So Calif. Chem Co plant

Complaint Details Mr Gohl noticed numerous dead trees north of the plant. He thinks that the company maybe dumping chemicals on the ground or into sewer,

****

INVESTIGATION FINDINGS

Date 7/29/81 Time 9:30am-10:15am By G. Stennes, J. Evans

Interviewed Robert Evans Weather ~60°/Rainy Photos No

Violations Observed The trees in questioned were north across the rd from So Calif Chem Co, next to a barbeque place. There is a row of trees in which two of them were dying. The other trees appeared to be ok, and vegetation around the area was good. This same complaint

Respondent's Remarks was checked out by DWPC - Ken Rosenwinkle. I spoke with him and he observed nothing unusual. I call Mr Gohl back and told him we detected nothing out of the ordinary and if it was at fault. was possible a tree disease. He told me had McHenry Co Health Dept coming out to see if it was a disease. He (Gohl) said he would get back to me one way or another on the matter

****

FOLLOW-UP ACTION

Refer To

File Opened Yes (No)

CC: KPB
Northeast Region (2)

LPC 41 8/79

RECEIVED
AUG 04 1981
E.P.A. — D.L.P.C.
STATE OF ILLINOIS

McHenry Co - 1110902
Union/So California Chem Co

REFERENCE NUMBER 07

COOPERATIVE EXTENSION SERVICE

COLLEGE OF AGRICULTURE
UNIVERSITY OF ILLINOIS AT URBANA - CHAMPAIGN

4200 West Euclid Avenue, Rolling Meadows, IL 60008, Phone 312 991-1160

December 12, 1981

Mr. Glen Sternard
Illinois Environmental Protection Agency
Division of Land and Water Pollution Control
1701 South 1st Avenue, Suite 600
Maywood, IL 60153

Dear Mr. Sternard,

I inspected the trees on the property at 17415 East Jefferson, Union this morning.

Accompanying me was my associate from McHenry County, Erin Hynes.

The trees in question are four box elders, (Acer negundo). The trees are essentially dead although there is still some living tissue in one of them. All four of the trees are girdled with the bark loose and falling away. Beneath the bark is evidence of fungus organisms, and several types of insects.

The fungi may have entered the tree through wounds in years past and girdled the trees. Or, the trees may have died first and then been invaded.

Samples were collected from the trees for copper analysis. Samples were also collected from apparently healthy trees north of those affected.

Soil samples were also collected for analysis.

Results of these analyses should tell us whether copper was involved in the death of these trees.

We will keep you informed as we get results.

Sincerely,

James A. Fizzell
Senior Extension Adviser,
Horticulture

JAF/jb

UNION/SO. CALIFORNIA CHEM.

COOPERATIVE EXTENSION SERVICE

COLLEGE OF AGRICULTURE
UNIVERSITY OF ILLINOIS AT URBANA - CHAMPAIGN
4200 West Euclid Avenue, Rolling Meadows, IL 60008, Phone 312 991-1160

February 1, 1982

Mr. Glen Sternard
Illinois Environmental Protection Agency
Division of Land and Water Pollution Control
1701 South 1st Avenue, Suite 600
Maywood, IL 60153

Dear Mr. Sternard,

After quite a delay, we finally received the report of copper analysis made on wood and soil samples collected at the East Jefferson site in Union.

The results are as follows:

Tree # 1 Dead. This is the southernmost tree in the row of box elders.

Latest year grwoth (tips)	83.8 ppm Cu
2-3 year old wood	94.7 ppm Cu
4-5 year old wood	81.6 ppm Cu

Tree # 2 Dead. This is the second tree in the row. Borings from the trunk were analysised. 66.6 ppm cu.

Tree # 5 Alive and apparently healthy

Current years' growth	136.15 ppm Cu
2-3 year old growth	129.85 ppm Cu
4-5 year old growth	90.25 ppm Cu

Soil collected from beneath tree 1 and 2 contained 588 ppm Cu.

Levels of copper normally expected would be less than 10 ppm in the tissues of the plants. The levels in both the live and the dead trees are way above this. Undoubtedly copper has been available in excessive amounts for the plants to absorb so much.

Soil tests for copper run between 10 and 15 ppm and a level of nearly 600 ppm is rare.

Unfortunately we cannot answer the question as to whether copper excess killed the box elder trees in question since we don't know what level is fatal. Suffice to say there is quite a bit more then nature provided at the site, and it probably does the plants no good.

Tree # 5 does, however, have the most copper and is still apparently healthy.

See my letter of December 12, 1981 for a description of the condition of the trees.

The importance of the copper in death of the boxelder is probably academic since the species is short-lived and not considered a desirable landscape plant. The presence of high levels of copper in the environment does indicate that the material is escaping from the chemical company's property and this should be stopped if at all possible.

I hope this information is adequate for your purposes in solving the problems at Union.

Sincerely,

James A. Fizzell
Senior Extension Adviser,
Horticulture

JAF/jb
CC: Erin Hynes

REFERENCE NUMBER 08

5-12-83

Subject facility recycles and reuses spent circuit board etchant and resells purified solution back to the customers. Mr Mark Holtzapfel represented S.C.C. Ammonia monitor was activated by holding ammonia jar below the tip of the probe. The alarm did go off on at the pre-determined levels indicating that it was functioning properly.

Ammonia monitor chart records were inspected for March and April 1983. High concentration of ammonia were released into the atmosphere on March 2, 3 1983 as evidenced by the attached recording chart Mr. Holtzapfel was of the opinion that the release might be the result of scrubber malfunctions. On turn I inspected their O.N. log. No entry was made of this malfunction.

I contacted him on 5/16/1983 to get specific details of this malfunctions According to him the malfunction might have been caused because they were replacing a fan & a blower although he did not know the exact dates on which this repair took place and (he) was not certain that his incidence might have caused the

ammonia release (there might be something else which he did not know & caused the malfunction)

Review of FOS file revealed that the facility is ~~not~~ not allowed to operate during the malfunction.

Furthermore they had failed to make the entry of the malfunctions/repairs in their O.M logs.

So the facility is in violation of Section 9(b) of the Act, rule 105(a) of

The release of excessive ammonia might have created a potential (& might be actual) for Sect. 9(a) of the Act & Rule 102.

Mr. Holtzapfel took over the job as the plant manager just few weeks ago and that is why he not familiar with the FIA formalities permitting & record keeping requirements.

It is recommended that a LTR be sent to the facility for the above discussed violations.

CC Miles Zamo
R 1 file

REFERENCE NUMBER 09

Environmental Protection Agency

2200 Churchill Road, Springfield, Illinois 62706

DIVISION OF AIR POLLUTION CONTROL

Field Operations Section

MALFUNCTION NOTIFICATION

Date Received: 5.16 1983 Region: one.

Time Received: 10 AM Received By:

IEPA/DAPC Personnel Receiving: S Dixon Phone:

Wire:

Other: X - Inspection 5/12/83.

Company Name: Southern California Chem I.D.: 111 090 A-16

Company Representative: Mark Holtzapfel.

Permit Name: A procen. Permit #: 75090094

Date/Time Malfunction Began: 3/2/83 / 3/3/83 Source #: 003

Date/Time Malfunction Ended: 3/2/83

Description of Malfunction: 3/3/83.

Scrubber malfunction on A-B procen during fan & blower replacement causing ammonia release into the atmosphere

Corrective Action: Repaired the fan & blower.

Letter to Follow? ____ Yes ____ No

Estimated Emissions:

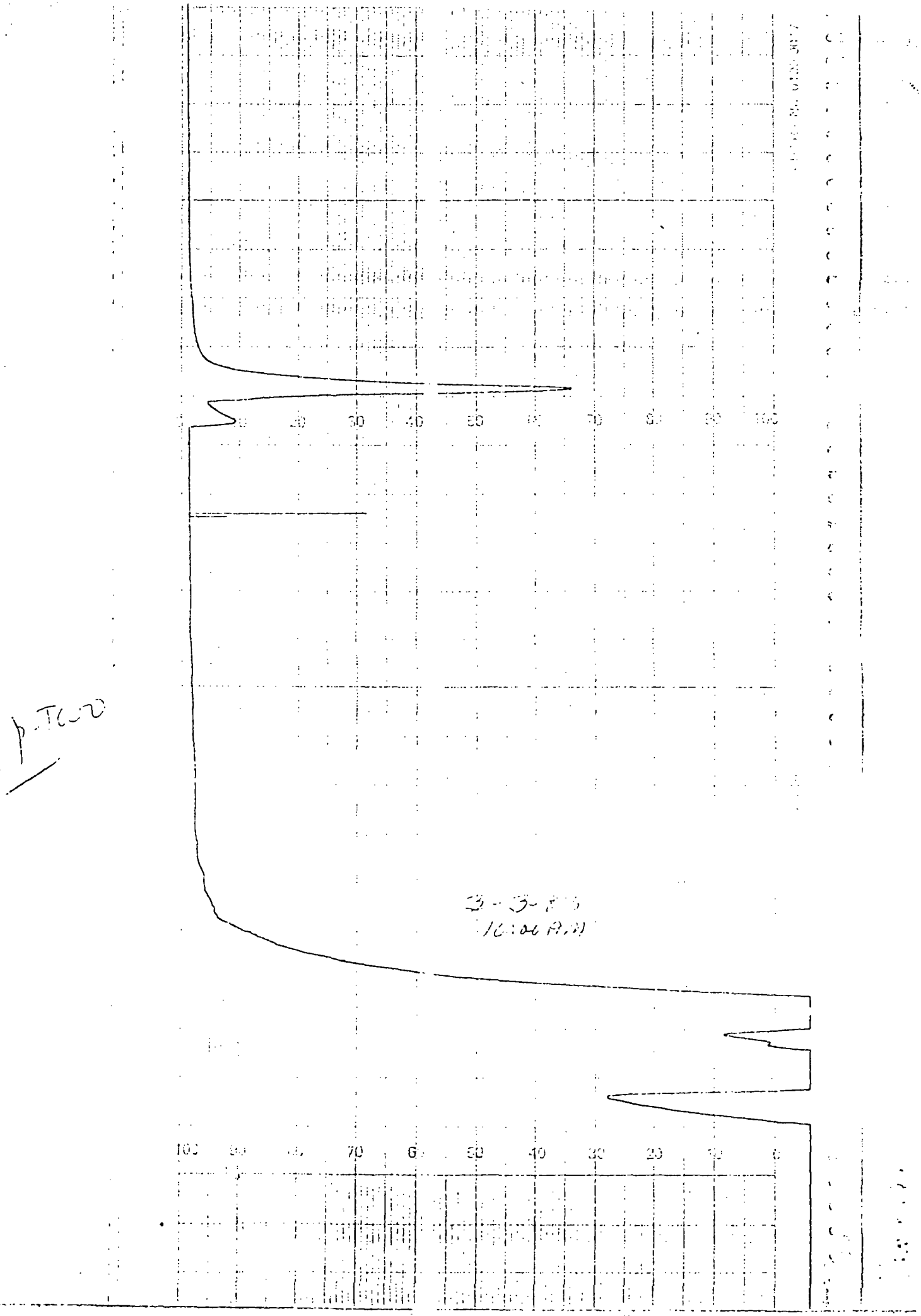
____ Actual (lb/hr)

____ Allowable (lb/hr)

____ Excess (lb/hr)

cc: DAPC Central File
Lilia Banks
MAZ

3-27-73
11:50 PM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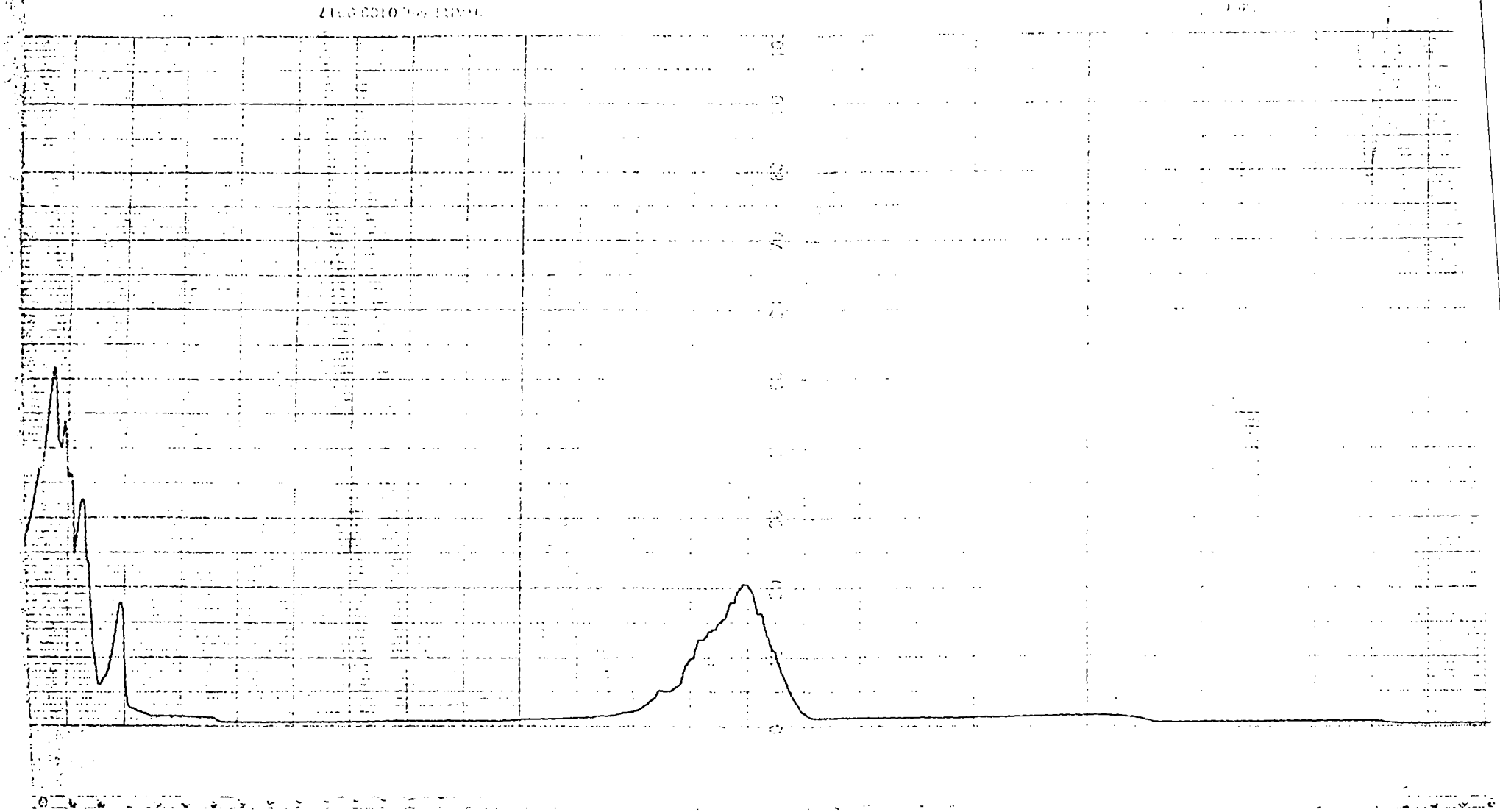


f-3

R-1 file

DATE: May 16, 83

TO: Sy. Levine

FROM: Sudhir. V. Desai

ID# 111 090 AAG

Date of Investigation: May 13 1983

SUBJECT: FACILITY: Southern California Chemical Co. SCC

ADDRESS: 17415 E. Jefferson St. Union, Ill. 60180

CONTACT/TITLE: Mark Holtzapfel - Ast. Mgr. PHONE: 815-923-213

312-341-1626

PRE-INVESTIGATION STATUS:

X Workplan Facility
__Quarterly Report
__Form 2
X Other

__Task Force, A
__On Program B
__Violator C
__NESHAPS, D
__Haz. Waste Inc., E
__NSPS, F
__Misc. HC Sources, G
__Annual Inspection, I
__Special Request, J

__Probable Mal'f, H
__Non-Traditional, ?
__Random +/or Unannounced, R
__HC Reduction-Cngo. Area, S
__TSP Levels in SE Cook County, T.
__Petrochemical Plant, ?

INSPECTION FINDINGS

__Emission Violation
__Permit Violation
__ Violation
__Permit Cond. Viol

X Warning Letter
__To Form 2. Report
__To Quarterly Report

__TAS Checked
__TAS Coded
__Form 177
__Flowform
X Malf'n - Wang

NARRATIVE:

(Rev. 11/82)

MARK W. HOLTZAPFEL
ASST. PLANT MANAGER

SOUTHERN CALIFORNIA CHEMICAL CO.
MANUFACTURING CHEMISTS

17415 JEFFERSON ST., UNION, ILL. 60180

(815) 923-2135 (312) 341-1624

IL 532 0570
EPA-53 (Rev. 6/76 20M)

ILLINOIS EPA
Environmental Protection Agency
1701 S. First Street Maywood, IL. 60153

May 19, 1983

Mr. Mark W. Holtzapfel
Plant Manager
Southern California Chemical Co., Inc.
17415 Jefferson Street
Union, IL 60180

RE: I.D. #111 090 AAG

Dear Mr. Holtzapfel:

This inquiry concerns apparent noncompliance with the requirements of the State of Illinois Environmental Protection Act and Air Pollution Control Regulations as observed on May 12, 1983. The apparent violations are as follows:

Rule 102: Discharge of ammonia into the atmosphere so as to cause Air Pollution in Illinois.

Rule 105(a): Operation of A and B processes during malfunctions on March 2 & 3, 1983 causing ammonia release into the atmosphere.

Section 9(a): Emissions of ammonia so as to cause Air Pollution.

Section 9(b): Operation of the Air Pollution control equipment in violation of DAPC standard operating conditions #6 and 7. Your O.M. log failed to show the malfunctions of scrubbers on March 2, 3, 1983.

The above mentioned violations were observed on March 2, 3, 1983.

Please submit in writing, within fifteen (15) days of receipt of this letter, the reasons for the apparent violations outlined above, as well as a description of the steps which have been initiated to prevent any further recurrence of the above-cited violations. This information should be sent to:

Mr. Sudhir V. Desai
Division of Air Pollution Control
Suite 600
1701 South First Avenue
Maywood, Illinois 60153

Further, take notice that noncompliance with the requirements may be the subject of enforcement action pursuant to the Illinois Environmental Protection Act, Ill. Rev. Stat., Ch. 111 1/2, Sec 1001 et seq.

Should you need additional information or have any question regarding the above, call Sudhir V. Desai at 312/345-9780.

Sincerely,

Sy Levine, P.E.
Regional Manager FOS/DAPC

SL/lb/1083:1

cc: ✓Miles Zamco
File

REFERENCE NUMBER 10

SOUTHERN CALIFORNIA CHEMICAL CO., INC.

MANUFACTURING CHEMISTS

HOME OFFICE: 8851 DICE ROAD • SANTA FE SPRINGS, CALIF. 90670 • (213) 698-8036 OR 723-4614 • TELEX 69-8247

March 30, 1984

Mc Henry Co.
Southern Ca. Chem.
IL1090000 02

EPA Region V
RCRA Activities
P.O. Box 7861
Chicago, Illinois 60680

Re: Notification of Change of Ownership
EPA ID No. ILD059483081 PA-M, SQG-2

Gentlemen:

Please be advised that effective January 1, 1984, Southern California Chemical Co., Inc. (SCC) sold all of its assets and business name to Philipp Brothers Chemicals, Inc., 10 Columbus Circle, New York, NY 10019.

SCC will continue to operate under the business name, Southern California Chemical Co., Inc., as a California corporation and no changes in operations are currently planned.

As discussed, enclosed is a revised page 4 of the Part A "Application" reflecting this change of ownership. If anything other than this letter and the "Application" is needed to effect this change (i.e., particular forms), would you please send the appropriate ones, along with instructions.

By way of this letter, we request continuation of operations without business or production interruptions during this transition period, and would appreciate receiving written acknowledgment of same to my attention at 8851 Dice Road, Santa Fe Springs, California 90670-0118.

Please call me at 213/698-8036 if there are any problems or questions I can help with.

RECEIVED
APR 11 1984
E.P.A. — D.L.P.C.
STATE OF ILLINOIS

Very truly yours,

Tere King

(Ms.) Tere King, C.P.M.
Manager, Environmental Affairs

TK:ls
Enclosure

cc: Mr. J. C. Bendheim
Mr. E. B. King

4/5/84
EPA RAIU

Continued from the front.

IV. DESCRIPTION OF HAZARDOUS WASTES *(continued)*

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

4/5/84

RECEIVED
APR 11 1984
E.P.A. — D.L.P.C.
STATE OF ILLINOIS

EPA I.D. NO. *(enter from page 1)*

F	I	L	D	0	5	9	4	8	3	0	8	1	T/A	6

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility *(see instructions for more detail)*.

VI. PHOTOGRAPHS

All existing facilities must include photographs *(aerial or ground—level)* that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas *(see instructions for more detail)*.

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE *(degrees, minutes, & seconds)*	LONGITUDE *(degrees, minutes, & seconds)*
42 13 40.64 N.	88 32 01.67 W.

VIII. FACILITY OWNER

☐ A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER	2. PHONE NO. *(area code & no.)*
E Philipp Brothers Chemicals, Inc.	212-586-6020

3. STREET OR P.O. BOX	4. CITY OR TOWN	5. ST.	6. ZIP CODE
F 10 Columbus Circle	G New York	NY	10019

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME *(print or type)*	B. SIGNATURE	C. DATE SIGNED
Southern California Chemical Co., Inc.	By: Gregor Otterbach	3/29/84

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME *(print or type)*	B. SIGNATURE	C. DATE SIGNED
Southern California Chemical Co., Inc.	By: Gregor Otterbach	3/29/84

REFERENCE NUMBER 11

Tainted water probed in Union

by Amy R. Mack
Herald staff writer

UNION — Even as water woes threaten to swamp the tiny town of Union's limited budget, state investigators are probing the possibility leaks from a chemical firm may have contaminated the community's water supply.

Although they hotly-deny causing the problem, Southern California Chemical Company has conceded a hydro-geological test may be needed, and the company may offer to donate money toward the cost of a new well, according to a letter from the company to the Illinois Attorney General's office.

Water contaminated with chlorides forced the village of 650 to close one of two operating wells last spring, leaving village officials desperately seeking help to fund a new water source. The closure of Well #3 has forced the town to utilize its only other functioning well (#2), which is not contaminated.

Although Well #2 is adequately supplying the town with drinkable water, it is a low-output well and could not provide an adequate flow of water in an emergency situation, according to Village Trustee and Water Department chairman Beth Metzen.

While village officials seek funding for a new $255,000 well, environmental and legal agencies continue to seek the source of the original contamination.

"We have suspicions and probable sources indicated," Matthew Dunn, of the environmental control division of the attorney general's office, said.

"We do know there has been a known spill of matter containing chloride at the Southern California Chemical plant and that it's scientifically possible that chloride from the plant could just now be reaching Well #3," Dunn added.

The state has contacted the chemical firm requesting their assistance in pinpointing the cause for the dramatically high chloride readings (850 parts per million versus 250 parts per million recommended by the Environmental Protection Agency).

"While they deny they're the cause, they do state there needs to be a hydro-geologi-

Please see WATER, page 2

PONTIAC
Daily Leader
8,937 D

3 area towns meet water fluoride rules

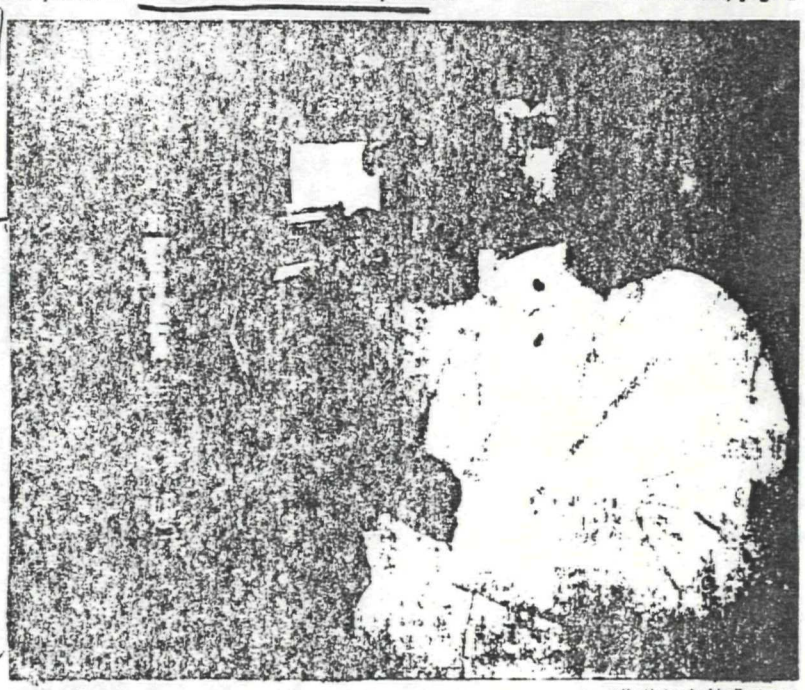
Three area communities have been recognized for their efforts toward maintaining required levels of fluoride in drinking water for 1966. Fairbury, Forrest and Northern Illinois Water Company at Pontiac were awarded honorable mention by the Illinois Department of Public Health and the Illinois Environmental Protection Agency.

Certificates were awarded to 93 water systems in recognition of their success in maintaining the required levels of fluoride in drinking water for 1966, and another 101 communities received honorable mention for nearly reaching the 100 percent compliance level last year.

Dr. Bernard J. Turnock, state health director, said fluoride levels of public water supplies are monitored each month by the IEPA lab, and in many communities the levels fluctuate and do not always meet the required levels.

Dr. Raymond A. Flanders, chief of IDPH's division of dental health, said that complying with fluoride levels required in the state's fluoridation law is important to citizens because of the dental health benefits. "We are pleased to recognize and commend the communities for their accomplishments in helping to fight tooth decay," he said in a news release.

There are about 1,000 water systems in the state that adjust fluoride levels.



Herald photo by John Konggaard

Holding a sample of water from one of its wells, Union's Water Department chairman, Beth Metzen, said, "Basically we're using our back up well as our main well, and there's no way to know how long it'll last. We don't have a back-up."

Water

(Continued from page 1)

cal study, which is what we asked for," Dunn said. "They also said they would be amenable to contributing to a new groundwater well.

"We did say, as a sympathy gesture only, that we might look at contributing to a new well if the village is short of money," Environmental manager Tere King, of Southern California Chemical, said.

"We do not think we had anything to do with the contamination," King added emphatically. "We do not feel our one-time spill (in 1978 or 79) would contribute to the town's chloride problem — it's more likely it came from a constant source such as road salt."

Initial investigations into the cause of the high chloride count in the water supply pointed to road salt and chemical contamination as two possible sources. Because of the relatively minute amount of road salt used by the town, it's probably not the source, according to hydrologist Bob Sassman of the Illinois Department of Energy and Natural Resources Water Survey Division.

"It seems to me they had not used enough road salt to have the kinds of problems they have," Sassman said.

"The only other possibility I am aware of is some kind of industrial contamination traveling through the ground into the well," Sassman speculated. "Chloride can move considerable distances through the ground."

"Coral Township stored their road salt near our plant in a three-sided shed," King responded, noting the components of the road salt fit with the type of contamination of the wells.

"We're outraged we're being accused of this," King added.

The various state agencies involved in the investigation will meet in the near future to discuss possible actions, Dunn said. Meanwhile the community is continuing to seek aid.

"We need money now," Metzen said. "Basically we're using our back-up well as our main well, and there's no way to know how long it'll last. We don't have a back-up."

REFERENCE NUMBER 12

Please print or type with ELITE type (12 characters/inch) in the unshaded areas only. GSA No. 0245-EPA-OZ Expiration Date 12/31/86

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

INSTRUCTIONS: If you received a preprinted label, affix it in the space at left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave items I, II, and III below blank. If you did not receive a preprinted label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION before completing this form. The information requested herein is required by law (Section 3010 of the Resource Conservation and Recovery Act).

INSTALLATION'S EPA I.D. NO.: ILD059483081

I. NAME OF INSTALLATION: Southern California Chemical Co., Inc.

II. INSTALLATION MAILING ADDRESS: 17415 East Jefferson Street, Union, IL 60180

PLEASE PLACE LABEL IN THIS SPACE

III. LOCATION OF INSTALLATION: 17415 East Jefferson Street, Union, IL 60180

DETACH

FOR OFFICIAL USE ONLY

COMMENTS: C

INSTALLATION'S EPA I.D. NUMBER	APPROVED	DATE RECEIVED (yr., mo., & day)
F ILD059483081 1		

I. NAME OF INSTALLATION

SOUTHERN CALIFORNIA CHEMICAL CO., INC.

II. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX: 17415 EAST JEFFERSON STREET

CITY OR TOWN: UNION | ST.: IL | ZIP CODE: 60180

RECEIVED AUG 11 1986 EPA DLPC

III. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER: 17415 EAST JEFFERSON STREET

CITY OR TOWN: UNION | ST.: IL | ZIP CODE: 60180

IV. INSTALLATION CONTACT

NAME AND TITLE (last, first, & job title)	PHONE NO. (area code & no.)
KING TERE MGR.-ENV. AFFAIRS	213-698-8036

V. OWNERSHIP

A. NAME OF INSTALLATION'S LEGAL OWNER: SOUTHERN CALIFORNIA CHEMICAL CO., INC.

B. TYPE OF OWNERSHIP (enter the appropriate letter into box): M

F = FEDERAL
M = NON-FEDERAL

VI. TYPE OF HAZARDOUS WASTE ACTIVITY (enter "X" in the appropriate box(es))

- [X] A. GENERATION
- [X] B. TRANSPORTATION (complete item VII)
- [X] C. TREAT/STORE/DISPOSE
- [ ] D. UNDERGROUND INJECTION

VII. MODE OF TRANSPORTATION (transporters only – enter "X" in the appropriate box(es))

- [ ] A. AIR
- [X] B. RAIL
- [X] C. HIGHWAY
- [ ] D. WATER
- [ ] E. OTHER (specify):

VIII. FIRST OR SUBSEQUENT NOTIFICATION

Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your installation's EPA I.D. Number in the space provided below.

- [ ] A. FIRST NOTIFICATION
- [X] B. SUBSEQUENT NOTIFICATION (complete item C)

C. INSTALLATION'S EPA I.D. NO.: ILD059483081

IX. DESCRIPTION OF HAZARDOUS WASTES

Please go to the reverse of this form and provide the requested information.

I.D. - FOR OFFICIAL USE ONLY

W | 1

IX. DESCRIPTION OF HAZARDOUS WASTES *(continued from front)*

A. HAZARDOUS WASTES FROM NON-SPECIFIC SOURCES. Enter the four-digit number from 40 CFR Part 261.31 for each listed hazardous waste from non-specific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
F006					
7	8	9	10	11	12

B. HAZARDOUS WASTES FROM SPECIFIC SOURCES. Enter the four-digit number from 40 CFR Part 261.32 for each listed hazardous waste from specific industrial sources your installation handles. Use additional sheets if necessary. NOT APPLICABLE

13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

C. COMMERCIAL CHEMICAL PRODUCT HAZARDOUS WASTES. Enter the four-digit number from 40 CFR Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
U219					
37	38	39	40	41	42
43	44	45	46	47	48

D. LISTED INFECTIOUS WASTES. Enter the four-digit number from 40 CFR Part 261.34 for each listed hazardous waste from hospitals, veterinary hospitals, medical and research laboratories your installation handles. Use additional sheets if necessary. NOT APPLICABLE

49	50	51	52	53	54

E. CHARACTERISTICS OF NON-LISTED HAZARDOUS WASTES. Mark "X" in the boxes corresponding to the characteristics of non-listed hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 - 261.24.)*

☐ 1. IGNITABLE (D001)	☒ 2. CORROSIVE (D002)	☐ 3. REACTIVE (D003)	☐ 4. TOXIC (D000)

X. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SIGNATURE	NAME & OFFICIAL TITLE *(type or print)*	DATE SIGNED
Tere King	Tere King Manager, Environmental Affairs	8/5/86

EPA Form 8700-12 (6-85) REVERSE

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AUG 11 1986
IEPA-DLPC

FORM 1 GENERAL

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER: F ILD059483081 D

LABEL ITEMS

I. EPA I.D. NUMBER	ILD059483081
II. FACILITY NAME	Southern California Chemical Co., Inc.
V. FACILITY MAILING ADDRESS	17415 East Jefferson Street
	PLEASE PLACE LABEL IN THIS SPACE
VI. FACILITY LOCATION	Union, IL 60180
	SAME AS ABOVE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X	
B. Does or will this facility *(either existing or proposed)* include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)		X	
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X		
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	
J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP: SOUTHERN CALIFORNIA CHEMICAL CO., INC.

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
2 KING TERE MGR.-ENV. AFFAIRS	213 698 8036

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

3 17415 EAST JEFFERSON STREET

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 UNION	IL	60180

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

5 17415 EAST JEFFERSON STREET

B. COUNTY NAME

MCHENRY

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
6 UNION	IL	60180	

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AUG 11 1986
IEPA-DLPC

CONTINUE ON REVERS

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST	B. SECOND
2819 (specify) Inorganic chemical manufacturing, N.E.C.	2899 (specify) Chemical preparations, N.E.C.
C. THIRD	**D. FOURTH**
5161 (specify) Bulk chemicals and allied products	(specify)

VIII. OPERATOR INFORMATION

A. NAME: SOUTHERN CALIFORNIA CHEMICAL CO., INC.

B. Is the name listed in Item VIII-A also the owner? [X] YES [ ] NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)
F = FEDERAL, S = STATE, P = PRIVATE, M = PUBLIC (other than federal or state), O = OTHER (specify)
P (specify) Private

D. PHONE (area code & no.) A 213 698 8036

E. STREET OR P.O. BOX: 8851 DICE ROAD

F. CITY OR TOWN: SANTA FE SPRINGS

G. STATE: CA

H. ZIP CODE: 90670

IX. INDIAN LAND

Is the facility located on Indian lands? [ ] YES [X] NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water) 9 N None----------	**D. PSD** (Air Emissions from Proposed Sources) 9 P None----------
B. UIC (Underground Injection of Fluids) 9 U None----------	**E. OTHER** (specify) 9 1 110900002 (specify) IL Permit No. - RCRA
C. RCRA (Hazardous Wastes) 9 R ILD059483081	**E. OTHER** (specify) 9 (specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property bounderies. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

The company manufactures inorganic chemicals, including copper compounds, proprietary and patented specialty products used in industries such as aerospace and electronics. Some of these proprietary products are solder strippers, brighteners, conditioners and most types of etchants.

A routine part of the company's sales-service program has included, since 1958, routine return and reuse of our products after use by customers.

RECEIVED
AUG 11 1986
IEPA-DLPC

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting f information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
Tere King Manager, Environmental Affairs	Tere King	8/5/86

COMMENTS FOR OFFICIAL USE ONLY

C

FORM 3 RCRA

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
HAZARDOUS WASTE PERMIT APPLICATION
Consolidated Permits Program
(This information is required under Section 3005 of RCRA.)

I. EPA I.D. NUMBER: F ILD059483081

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)	COMMENTS

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below *(mark one box only)* to indicate whether this is the first application you are submitting for your facility or revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility' EPA I.D. Number in Item I above.

A. FIRST APPLICATION *(place an "X" below and provide the appropriate date)*

[X] 1. EXISTING FACILITY *(See instructions for definition of "existing" facility. Complete item below.)*

[ ] 2. NEW FACILITY *(Complete item below.)*

C 8 — YR. 72 MO. 10 DAY 16 — FOR EXISTING FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*

YR. __ MO. __ DAY __ — FOR NEW FACILITI PROVIDE THE DAT *(yr., mo., & day)* OPE TION BEGAN OR IS EXPECTED TO BEG

B. REVISED APPLICATION *(place an "X" below and complete Item I above)*

[X] 1. FACILITY HAS INTERIM STATUS

[ ] 2. FACILITY HAS A RCRA PERMIT

III. PROCESSES — CODES AND DESIGN CAPACITIES

A. PROCESS CODE — Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided fo entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, the describe the process *(including its design capacity)* in the space provided on the form *(Item III-C)*.

B. PROCESS DESIGN CAPACITY — For each code entered in column A enter the capacity of the process.
1. AMOUNT — Enter the amount.
2. UNIT OF MEASURE — For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER *(barrel, drum, etc.)*	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D79	GALLONS OR LITERS
LANDFILL	D80	ACRE-FEET *(the volume that would cover one acre to a depth of one foot)* OR HECTARE-METER
LAND APPLICATION	D81	ACRES OR HECTARES
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
OTHER *(Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)*	T04	GALLONS PER DAY OR LITERS PER DAY

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	A
LITERS	L	TONS PER HOUR	D	HECTARE-METER	F
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	B
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	Q
GALLONS PER DAY	U	LITERS PER HOUR	H		

EXAMPLE FOR COMPLETING ITEM III *(shown in line numbers X-1 and X-2 below)*: A facility has two storage tanks, one tank can hold 200 gallons and th other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

C DUP T/A C 1

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT	2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S02	600	G		5	S02	10,000	G	
X-2	T03	20	E		6	S02	10,000	G	
1	S01	9,200	G		7	S02	10,000	G	
	S02	6,000	G		8	S01	25,000	G	
3	S02	9,200	G		9				
4	S02	10,000	G		10				

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III. PROCESSES *(continued)*

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES *(code "T04")*. FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

IV. DESCRIPTION OF HAZARDOUS WASTES

A. EPA HAZARDOUS WASTE NUMBER — Enter the four–digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four–digit number*(s)* from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY — For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non–listed waste*(s)* that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE — For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:
   For listed hazardous waste: For each listed hazardous waste entered in column A select the code*(s)* from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.
   For non–listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code*(s)* from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non–listed hazardous wastes that possess that characteristic or toxic contaminant.
   Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code*(s)*.

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER — Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B,C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV *(shown in line numbers X-1, X-2, X-3, and X-4 below)* — A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non–listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2				included with above

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CONTINUE ON PAGE 3

Continued from page 2.

NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

Form Approved OMB No. 158-S80004

EPA I.D. NUMBER (enter from page 1)														FOR OFFICIAL USE ONLY												
W	I	L	D	0	5	9	4	8	3	0	8	1	T/A	C	W	DUP								T/A	C	2	DUP
1	2											13	14	15	1	2								13	14	15	23 - 26

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)				D. PROCESSES 2. PROCESS DESCRIPTION (If a code is not entered in D(1))
	23 - 26	27 - 35	36	27 - 29	27 - 29	27 - 29	27 - 29	
1	D002	100,000	P	S01	S02	T04*		Cupric chloride solution
2	0000	100,000	P	S01		T04*		Spent peroxide/sulfuric etch ¶ $CuSO_4$, dry
3	D002	100,000	P	S01	S02	T04*		$CuSO_4$, solution ¶
4	0000	200,000	P	S01		T04*		Cupric oxide ¶
5								
6	D002	0-40,000	P				000	Sometimes plant cleanup solutions and
7	0000		P				000	tank residues are shipped off-si
8	0000		P	S01	S02		000	for disposal
9								
10	D002	8,000,000	P				000	Cupric ammonium chloride solution
11	D008		P	S01	S02	T04*		Pb is sometimes contained in above
12								
13	D002	Approx. 0-200,000	P				000	Spent solder stripper ¶
14	D008		P	S01			000	Pb is sometimes contained in above. Material is not treated
15	0000		P				000	at Union plant; it is transferred to California plant.
16								
17								
18								
19								
20								
21								
22		*T01 seems to indicate treatment occurring prior to use. Since no "treatment"						
23		occurs, and these materials are used "as is" as raw material in product						
		manufacturing, T04 is used.						
25		¶ These materials are only received for transfer to the final destination.						
26								

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EPA Form 3510-3 (6-80)

CONTINUE ON REVERSE

Continued from the front.

IV. DESCRIPTION OF HAZARDOUS WASTES *(continued)*

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

EPA I.D. NO. *(enter from page 1)*

F I L D 0 5 9 4 8 3 0 8 1 | T/A | C 6

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility *(see instructions for more detail).*

VI. PHOTOGRAPHS

All existing facilities must include photographs *(aerial or ground–level)* that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas *(see instructions for more detail).*

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE *(degrees, minutes, & seconds)*	LONGITUDE *(degrees, minutes, & seconds)*
42 13 40.64 N.	88 32 01 67 W.

VIII. FACILITY OWNER

[X] A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER	2. PHONE NO. *(area code & no.)*
E	

3. STREET OR P.O. BOX	4. CITY OR TOWN	5. ST.	6. ZIP CODE
F	G		

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME *(print or type)*	B. SIGNATURE	C. DATE SIGNED
Tere King	Tere King	8/5/86

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

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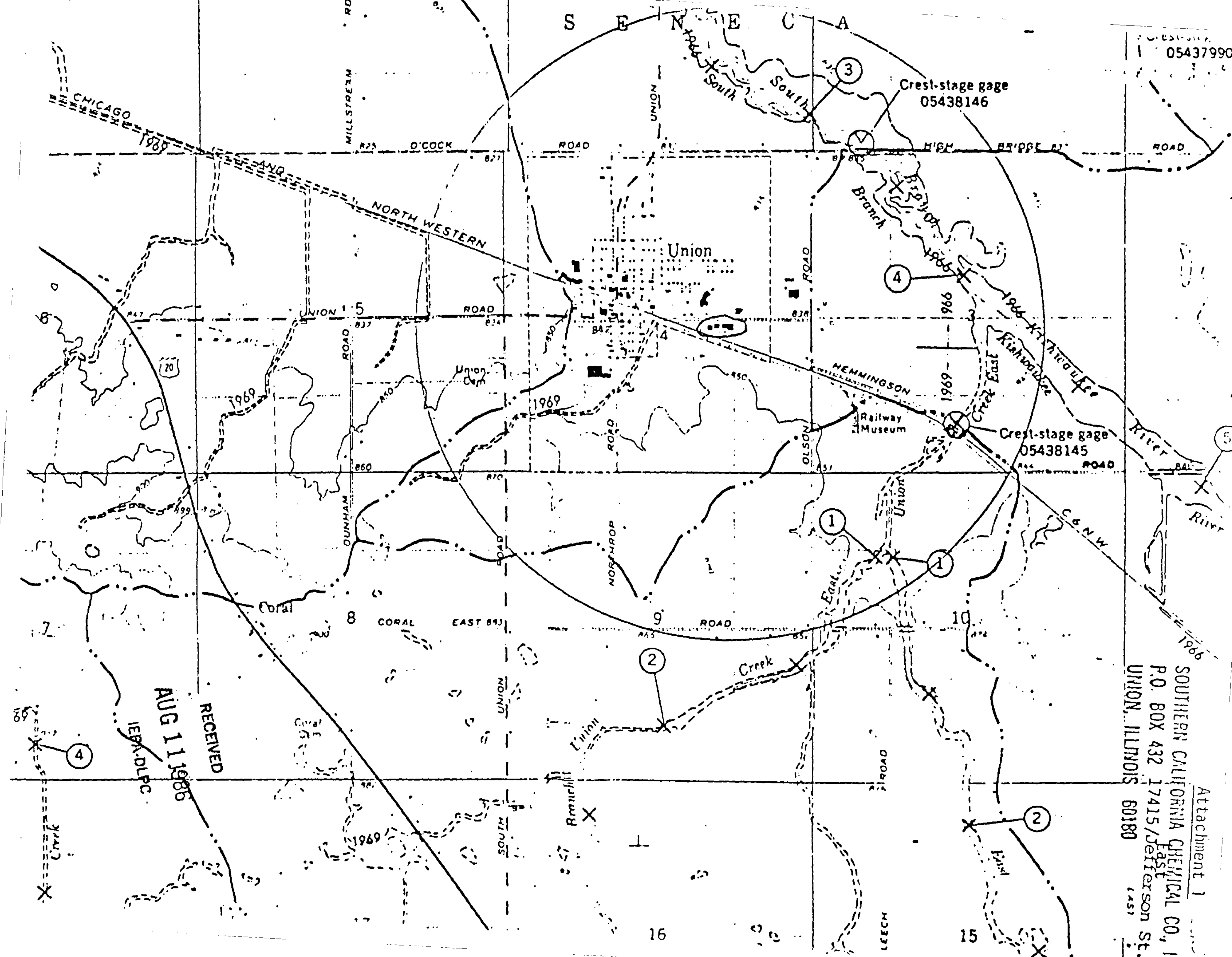
A. NAME *(print or type)*	B. SIGNATURE	C. DATE SIGNED
Gregor Otterbach	Gregor Otterbach	8/5/86

CONTINUE ON PAGE 5

V. FACILITY DRAWING *(see page 4)*

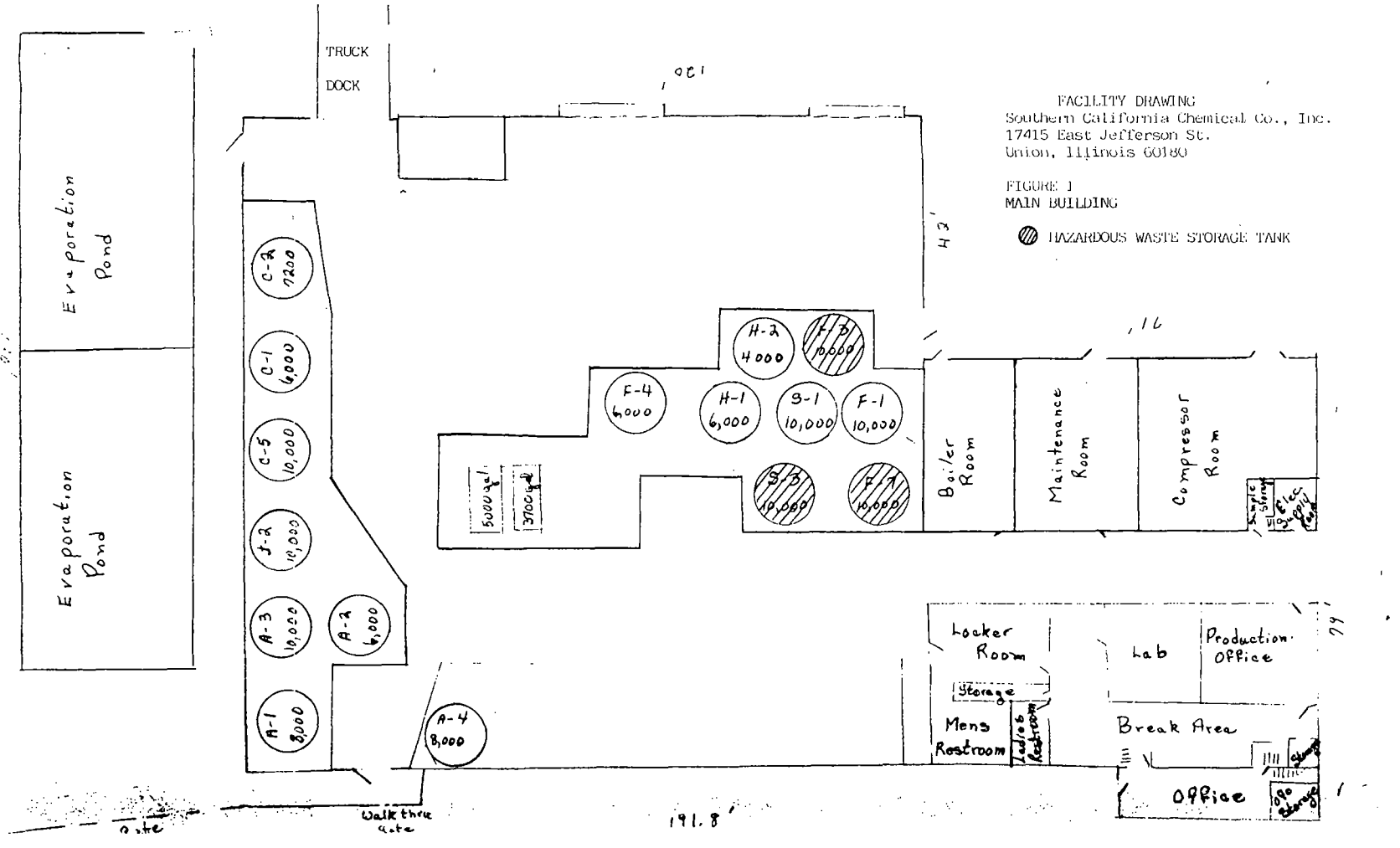
Form 1, Section XI. "MAP" - See Attachment 1.

V. Facility Drawing - See Attachment 2.



Attachment 1

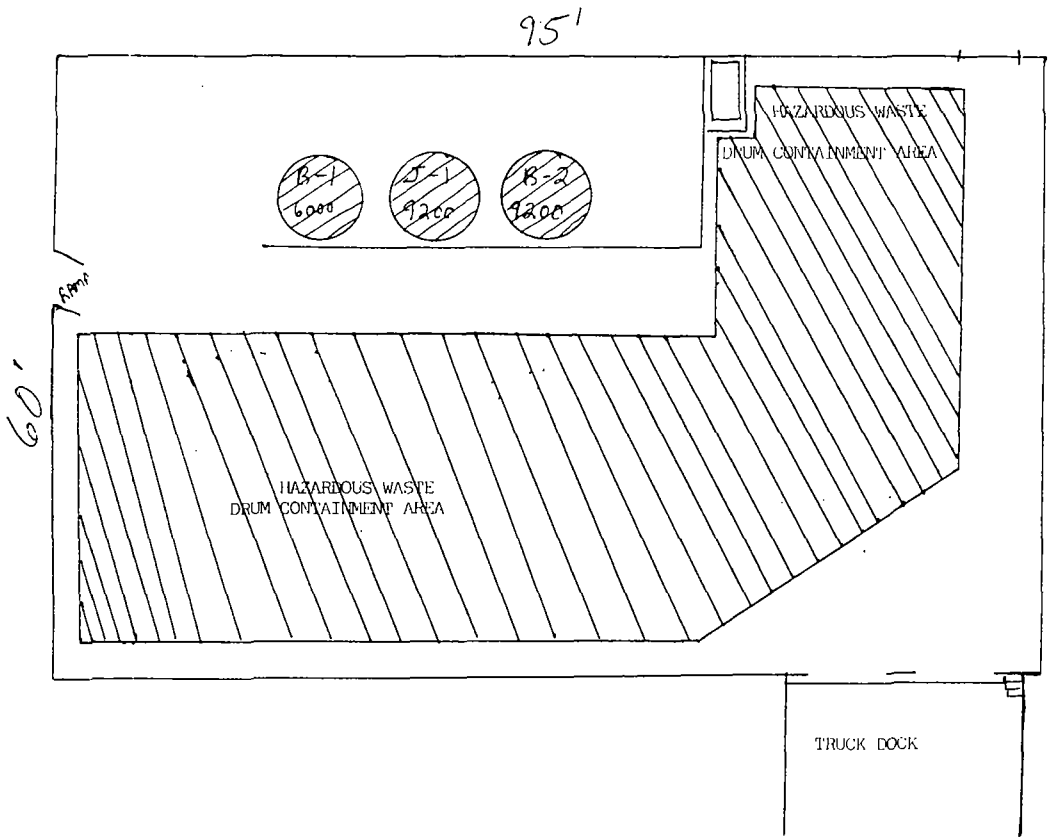
SOUTHERN CALIFORNIA CHEMICAL CO.
P.O. BOX 432 17415 East Jefferson St.
UNION, ILLINOIS 60180



FACILITY DRAWING
Southern California Chemical Co., Inc.
17415 East Jefferson St.
Union, Illinois 60180

FIGURE 1
MAIN BUILDING

HAZARDOUS WASTE STORAGE TANK



FACILITY DRAWING
Southern California Chemical Co., Inc.
17415 East Jefferson St.
Union, Illinois 60180

FIGURE 2.
BUILDING C (Burke Bldg.)

HAZARDOUS WASTE STORAGE TANK

HAZARDOUS WASTE DRUM CONTAINMENT AREA

REFERENCE NUMBER 13

aqualab inc.

ANALYTICAL REPORT

RECEIVED MAY 18 1987

Ms. Jeri Figi
SOUTHERN CALIFORNIA TEST
P.O. Box 432
Union IL 60180

05-15-87

Sample No: 46431

SAMPLE DESCRIPTION: Floor Sweepings (SPILL RESIDUES)
See Below

Date Taken: 04-21-87

Date Received: 04-21-87

Acidity (CaC03)	13.1	%
Chloride	125.	ug/g
Color, Apparent	Green	
Cyanide, Total	1.34	ug/g
Density, Nonaqueous	95.60	lb/ft3
Solids, Total(non-aqueous)	78.69	%
Sulfide	<0.2	ug/g
Paint Filter	Y	
Arsenic	<0.1	ug/g
Barium	4.00	ug/g
Cadmium	1.20	ug/g
Chromium, Hex - EP Tox	<0.1	mg/L
Chromium, Total	22.8	ug/g
Copper	13,100.	ug/g
Lead	240.	ug/g
Mercury	<0.01	ug/g
Selenium	<0.05	ug/g
Silver	4.95	ug/g
Corrosivity (pH)	6.17	units
Ignitability (Flash Point)	No Flash @ 212	Degree F
Reactive Sulfide	<0.25	ug/g
Reactive Cyanide	0.071	ug/g
EP Tox - Cadmium	0.023	mg/L
EP Tox - Chromium	0.269	mg/L
EP Tox - Lead	0.22	mg/L

RECEIVED SEP 21 1987 IEPA/DLPC

cc: Tere King/Santa Fe

Toni Gartner, Manager
Rockford Division

Austin Division	Bartlett Division	Rosner/Runyon Division	Rockford Division	Corporate Office
2621-130 Ridgepoint Dr. Austin TX 78754 512-928-8905	850 West Bartlett Rd. Bartlett IL 60103 312-289-3100	222 South Morgan St. Chicago IL 60607 312-666-4469	3548 35th St. Rockford IL 61109 815-874-2171	850 West Bartlett Rd. Bartlett IL 60103 312-289-3100

aqualab inc.

ANALYTICAL REPORT

Ms. Jeri Figi
SOUTHERN CALIFORNIA TEST
P.O. Box 432
Union IL 60180

05-15-87

Sample No: 46431

SAMPLE DESCRIPTION: Floor Sweepings (SPILL RESIDUES)
See Below

Date Taken: 04-21-87

Date Received: 04-21-87

Acid Compatability	No Reaction	
Base Compatability	Color change,green>blue	
Water Compatability	No Reaction	
Penetrometer	>2.	tons/ft2

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SEP 21 1987
IEPA/DLPC

T Gartner

Toni Gartner, Manager
Rockford Division

Austin Division	Bartlett Division	Rosner/Runyon Division	Rockford Division	Corporate Office
2621-130 Ridgepoint Dr. Austin TX 78754 512-928-8905	850 West Bartlett Rd. Bartlett IL 60103 312-289-3100	222 South Morgan St. Chicago IL 60607 312-666-4469	3548 35th St. Rockford IL 61109 815-874-2171	850 West Bartlett Rd. Bartlett IL 60103 312-289-3100

aqualab inc.

ANALYTICAL REPORT

Ms. Jeri Figi
SOUTHERN CALIFORNIA TEST
P.O. Box 432
Union IL 60180

05-15-87

Sample No: 46432

SAMPLE DESCRIPTION: Cement Pad Soil

Date Taken: 04-21-87

Date Received: 04-21-87

Acidity (CaC03)	3,100.	ug/g
Chloride	109.	ug/g
Color, Apparent	Brown	
Cyanide, Total	0.73	ug/g
Density, Nonaqueous	108.26	lb/ft3
Solids, Total(non-aqueous)	76.55	%
Sulfide	0.22	ug/g
Paint Filter	Y	
Arsenic	<0.1	ug/g
Barium	0.50	ug/g
Cadmium	3.05	ug/g
Chromium, Hex - EP Tox	<0.1	mg/L
Chromium, Total	730.	ug/g
Copper	14,650.	ug/g
Lead	675.	ug/g
Mercury	0.019	ug/g
Selenium	<0.05	ug/g
Silver	2.50	ug/g
Corrosivity (pH)	4.93	units
Ignitability (Flash Point)	No Flash @ 212	Degree F
Reactive Sulfide	<0.25	ug/g
Reactive Cyanide	0.035	ug/g
EP Tox - Cadmium	0.012	mg/L
EP Tox - Chromium	0.665	mg/L
EP Tox - Lead	0.25	mg/L

Toni Gartner, Manager
Rockford Division

Austin Division	Bartlett Division	Rosner/Runyon Division	Rockford Division	Corporate Office
2621-130 Ridgepoint Dr. Austin TX 78754 512-928-8905	850 West Bartlett Rd. Bartlett IL 60103 312-289-3100	222 South Morgan St. Chicago IL 60607 312-666-4469	3548 35th St. Rockford IL 61109 815-874-2171	850 West Bartlett Rd. Bartlett IL 60103 312-289-3100

aqualab inc.

ANALYTICAL REPORT

Ms. Jeri Figi
SOUTHERN CALIFORNIA TEST
P.O. Box 432
Union IL 60180

05-15-87

Sample No: 46432

SAMPLE DESCRIPTION: Cement Pad Soil

Date Taken: 04-21-87

Date Received: 04-21-87

Acid Compatability	No Reaction	
Base Compatability	No Reaction	
Water Compatability	No Reaction	
Penetrometer	>2.	tons/ft2

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SEP 21 1987
IEPA/DLPC

L. Gartner

Toni Gartner, Manager
Rockford Division

Austin Division	Bartlett Division	Rosner/Runyon Division	Rockford Division	Corporate Office
2621-130 Ridgepoint Dr. Austin TX 78754 512-928-8905	850 West Bartlett Rd. Bartlett IL 60103 312-289-3100	222 South Morgan St. Chicago IL 60607 312-666-4469	3548 35th St. Rockford IL 61109 815-874-2171	850 West Bartlett Rd. Bartlett IL 60103 312-289-3100

REFERENCE NUMBER 14 1110900002/MCHENR FOS

SOUTHERN CALIFORNIA CHEMICAL CO., INC.

MANUFACTURING CHEMISTS

P.O. BOX 432 • UNION, ILLINOIS 60180 • (815) 923-2136

4 November 1987

Environmental Protection Agency
Clean-Up Objective Team
2200 Churchill Rd.
Springfield, IL 62706

Dear Sirs:

Enclosed please find a copy of the EP Toxicity Test results that was done from a sampling of two ponds at our facility. We combined the sludge from both ponds to form one sample. At this time we are very seriously looking to clean out both ponds. We need to know what permitting is necessary to achieve this, if any. If it is at all possible to get permission right away, we would like to do so as we are prepared to start clean-up immediately. I am sure that Mr. Dean Lee of your Maywood Office could help if you should have any questions about this. You can reach me at C.P. Chemicals, Sumter, SC. My number is 803/481-8528. Please do not hesitate to call if there is anything I can help you with.

Regards,

Mark W. Holtzapfel

Mark W. Holtzapfel, Plant Manager
Southern California Chemical Company
Union, IL 60180

MWH/11
encl. (1)

aqualab inc.

3548 35th Street, Rockford, Illinois 61109 815/874-2171

ANALYTICAL REPORT

Ms. Jeri Figi
SOUTHERN CALIFORNIA TEST
P.O. Box 432
Union IL 60180

10-20-87

Sample No: 49161

SAMPLE DESCRIPTION: Pond Sludge

Date Taken: 09-25-87

Date Received: 09-29-87 1030

EP Tox - Arsenic	<0.01	mg/L
EP Tox - Barium	0.09	mg/L
EP Tox - Cadmium	<0.001	mg/L
EP Tox - Chromium	0.005	mg/L
EP Tox - Lead	0.12	mg/L
EP Tox - Mercury	<0.001	mg/L
EP Tox - Selenium	<0.01	mg/L
EP Tox - Silver	0.008	mg/L

T Gartner

Toni Gartner, Manager
Rockford Division

REFERENCE NUMBER 15

SUMMARY

On 11/23/87 a follow up to the inspection done on 5/1/87 was conducted. During this inspection the following violations were again noted.

725.131 - evidence of spills throughout the plant

*725.274 - evidence of spills in container storage area indicates that inspections are inadequate

725.294 - evidence of spills in the tank storage area indicates that inspections are inadequate

* It should be noted that the spills noted in the container area during 5/1/87 inspection are cleaned up. But, spills in the new container area are noted during the follow-up. Thus the company is still in violation of 725.274.

MG:1b

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DEC - 4 1987
IEPA/DLPC

REFERENCE NUMBER 16

111090002
McHENRY COUNTY
SOUTHERN CALIFORNIA
CHEMICAL
[illegible] FILE
FOS

Decatur
Herald & Review
47916

Taylorville water OK now; bad in October

10c

1-12

By KEVIN McDERMOTT
H&R Pana Bureau Chief

TAYLORVILLE — Warning: The water you drank three months ago might have been contaminated.

That, in essence, is the frightening message city residents are finding on their doorknobs, due to an old water sample and a new state regulation.

The Taylorville City Water Department on Friday began hanging notices on residents' doors warning them that the water they drank in October might have had an unusually high count of coliform bacteria, which can indicate the presence of disease-causing waste substances.

But the water's fine now, according to the notices.

A "questionable" water sample taken in October is only now being reported to consumers because of a new Illinois Environmental Protection Agency regulation, according to Water Superintendent Joe Marucco.

"We can no longer just [illegible] the newspaper (warning [illegible] water problems)," Marucco said. "Now we have to give notice directly to each customer."

When the high coliform count was discovered in October, the state EPA ordered follow-up tests on the water. Those tests indicated that there was no problem with the water.

Marucco speculated that the questionable sample may have been contaminated during or after the time it was taken from the city's water supply.

With repeated subsequent tests showing coliform levels within the legal limit, the single high-count sample was discarded as a fluke.

Two months later, the EPA told the [illegible]ty it must report the high count to its [illegible]000 customers because of the new regulation.

Coliform bacteria is found in the digestive tracts of humans and animals. Its discovery in treated water is an indication that the water has been contaminated with human or animal waste.

The current IEPA limit for coliform bacteria is one per 100 milliliters of water; the questionable sample in October had a count of 2.42.

Meanwhile, in Mount Zion, a similar notice was received with water bills due in January, according to a resident. The notice referred to testing done in October, with tests done since showing the water to be safe.

McHENRY
Northwest Herald Edition
8,295 D

JAN 11 1988

Search for well's pollutants

By Kurt Begalka
Herald community editor

10c

UNION — After three years of monitoring the village's Well No. 3, the Illinois Environmental Protection Agency has still found unacceptable levels of contaminants in its water.

"We've continued with the monitoring to see whether the chloride condition has improved," said Matt Dunn, assistant attorney general, environmental division. "So far it has not. Chlorides and other chemicals have continued to persist, even rise a little bit."

The latest water samples show levels of iron, chlorides and ammonia have all increased, said Leonard "Bud" Lindstrom, regional manager for the Illinois Environmental Protection District's division of public water supplies. "Once you've contaminated the groundwater, you've contaminated the groundwater. What really has to be done there is to try to find the somebody responsible for it."

Lindstrom stressed that his studies have shown the situation definitely is not a natural occurrence. "Somebody has had to have dumped something someplace to have caused this problem," he said.

Dunn said in order to prove who is responsible for polluting the aquifer, shallow test wells are needed in an upgradient direction. The fact that there is no sewage system makes monitoring discharges harder, but not impossible. Lindstrom said chemical spills leave a distinctive "plume" of salt. The source can be determined by digging a series of wells and testing the salinity of the water.

Dunn said the attorney general's office prosecuted Southern California Chemical Company, Inc., in 1979 for a chemical spill at its site on 17415 Jefferson St. The company was forced to clean up an adjacent farm field and remove contaminated soils. In another incident, high copper levels were found in the soil across the street at Evergreen Park School. The chemical firm resodded a portion of that land, Dunn said.

Dunn said cholorides, present in high levels in the aquifer, were similar to the chemicals in the 1979 spill. "From the past occurrences it (Southern California) has been involved with, it is a potential source we cannot overlook; we won't overlook," he added. However, Dunn stressed that the chemical company "was not the only potential source" and that all possibilities have not been exhausted.

Dunn said he expects the investigation to have progressed sufficiently to dig the test wells by spring or summer this year thereby providing scientific proof. He added that those responsible could be found guilty of violating the Illinois Environmental Protection Act's civil provisions. A criminal violation did not occur since chemicals considered "hazardous wastes" were not diposed of.

Dunn said that the village need not bear the cost of digging the test wells. Federal Superfund monies are available through the United States EPA by contacting the Region 5 headquarters. Candidates are placed on the "circ list," said Thomas Crause, manager of the preliminary assessment site inspection program.

Crause said before funds are released a preliminary assessment, a pulling together of all previous documentation and test results, is conducted within a year of being included on the list. This may be followed by a site inspection, if warranted. If test wells are called for, he added, data will be gathered for between 30 and 45 days before any culprit is sought.

Crause said while the process can be time-consuming, it's not uncommon to have a money available within a year in an emergency.

Dunn said the attorney general's office also might help finance the digging and seek to recoup their expenses later from the guilty party. He cautioned, however, any compensation process promises to be lengthy — particularly with a $255,000 price tag for a new village well.

Belleville
News Democrat
44046

IEPA would welcome easing of fluoride limit

1c

WASHINGTON (AP) — Forty-two towns and other drinking-water sources could avoid state sanctions if Illinois eases its limit on fluoride to match federal rules, a move the U.S. Environmental Protection Agency said it welcomes.

The EPA has relaxed its standard to allow no more fluoride in drinking water than 4 parts per million. However, Illinois requires communities to meet an old federal limit of 1.8 to 2 parts per million, depending on their location.

As a result, towns that meet federal guidelines but exceed the state limit and have been placed on "restricted status" may not expand their water systems until they reduce fluoride levels, Illinois EPA officials said.

The situation rankles small towns caught between the two standards, and Monmouth Mayor Pat McManus said most cannot afford to come into compliance.

He said Monmouth's 10,700 residents, for example, might have to [illegible] million to lower the current fluoride level of 2.[illegible] parts per million [illegible] parts per million -- a concentration well below U.S. EPA guidelines and barely above the state limit.

"That's big bucks," McManus said. "If that requirement is enforced, you have almost no one but the local community to fall back on.... In the absence of any easily accessible funding source, it ends up being that we float bonds and raise water rates to pay for it."

The standard was set by the Illinois Water Pollution Control Board, which has done nothing — despite a recommendation from the IEPA — to make it consistent with that of the federal government, said Roger Selburg, manager of the agency's public water supply division.

Rather than waiting for board action, the IEPA asked the General Assembly to pass a measure allowing the state to match its fluoride standard with the federal limit without a lengthy board hearing process lasting several years, Selburg said.

"It was a case of being something nobody disapproved of, but it was part of [illegible] that was not passed," IEPA spokesman Cinda Schien said.

Now, she said, lawmakers are being asked to try again.

REFERENCE NUMBER 17

1108002/McHenry Co
Union/Southern California Chemical
F.O.S

SOUTHERN CALIFORNIA CHEMICAL CO., INC.

MANUFACTURING CHEMISTS

P.O. BOX 432 • UNION, ILLINOIS 60180 • (815) 923-2136

July 13, 1988

Illinois EPA
Division of Land Pollution Control
Field Operations Section
1701 South First Ave.
Suite 600
Maywood, IL 60153

Attn: Mr. Chuck Gruntman

Mr. Gruntman,

Enclosed please find copies of the pictures from the pond clean-out. During our last meeting I gave you copies of the manifests for all the material that was removed from the ponds including approximately 1500 gallons of water used to wash the walls and floor. If you have any questions about any of this, please feel free to give me a call.

Regards,

Mark W. Holtzapfel

Mark W. Holtzapfel
Plant Manager
SCC Union, IL

cc: IEPA Union File
Bruce Wald
Bud Torrance

ISWS/BUL-60(19)/76
BULLETIN 60-19
STATE OF ILLINOIS
DEPARTMENT OF REGISTRATION AND EDUCATION

Public Groundwater Supplies in McHenry County

by DOROTHY M. WOLLER and ELLIS W. SANDERSON

ILLINOIS STATE WATER SURVEY
URBANA
1976

services; the 1973 average and maximum daily pumpages were 2700 and 4000 gpd, respectively. The water is chlorinated. The natural fluoride concentration in the water is adequate to satisfy state requirements.

WELL NO. 1, finished in dolomite, was completed in March 1971 to a depth of 395 ft by Joseph Huemann & Sons, McHenry. The well is located (b) (9) [redacted]

The land surface elevation at the well is approximately 920 ft.

A drillers log of Well No. 1 follows:

Strata	*Thickness (ft)*	*Depth (ft)*
Clay	10	10
Gravel	30	40
Hardpan	172	212
Limestone	8	220
Blue shale	5	225
Gray shale	105	330
Limestone	65	395

The well is cased with 12-in. black pipe to an unknown depth and the hole was finished 12 in. in diameter to the bottom. The top of the well casing is equipped with a Monitor pitless adapter.

Upon completion, the well reportedly produced 400 gpm for 12 hr with a drawdown of 60 ft from a nonpumping water level of 88 ft below land surface.

The pumping equipment presently installed is a Red Jacket submersible pump set at 252 ft, rated at 450 gpm, and powered by a 50-hp electric motor.

The following mineral analysis (Lab. No. 195667) is for a water sample from the well collected May 14, 1974.

WELL NO. 1, LABORATORY NO. 195667

		mg/l	*me/l*			*mg/l*	*me/l*
Iron (total)	Fe	0.2		Silica	SiO_2	7.7	
Manganese	Mn	0.03		Fluoride	F	3.0	
Ammonium	NH_4	0.1	0.01	Boron	B	1.5	
Sodium	Na	169	7.35	Nitrate	NO_3	0.5	0.01
Potassium	K	2.5	0.06	Chloride	Cl	6	0.17
Calcium	Ca	2.7	0.13	Sulfate	SO_4	1.2	0.02
Magnesium	Mg	1.2	0.10	Alkalinity (as $CaCO_3$)		366	7.32
Strontium	Sr	0.12					
Barium	Ba	<0.1		Hardness (as $CaCO_3$)		11	0.23
Copper	Cu	0.06					
Cadmium	Cd	0.00		Total dissolved minerals		432	
Chromium	Cr	0.00					
Lead	Pb	<0.05		Turbidity		1	
Lithium	Li	0.03		Color		0	
Nickel	Ni	<0.05		Odor		0	
Zinc	Zn	0.00		Temp. (reported)		53F	

UNION

The village of Union (579) installed a public water supply in 1912. One well (No. 3) is in use and another well (No. 2) is available for emergency use. In 1949 there were 125 services, none metered; the average daily pumpage was 30,000 gpd. In 1975 there were 150 services, none metered; the average and maximum daily pumpages were 96,737 and 145,000 gpd, respectively. The water from Well No. 2 is not treated. The water from Well No. 3 is chlorinated, fluoridated, and treated with polyphosphate to keep iron in solution.

WELL NO. 1, finished in sand and gravel, was completed in 1912 to a depth of 16 ft (measured 18.4 ft in 1928). This well was abandoned in 1935 and filled in between 1938 and 1947. The well was located about 45 ft south of Clark St. and 120 ft west of Wayne St., approximately 1550 ft S and 2500 ft E of the NW corner of Section 4, T43N, R6E. The land surface elevation at the well is approximately 835 ft.

A 10-ft diameter hole was dug to the bottom and walled with brick laid in cement mortar.

Nonpumping water levels varied seasonally from about 6 to 12 ft below land surface.

On September 7, 1938, after a short pumping period, the rate of inflow to the well was measured to be about 90 gpm.

WELL NO. 2, finished in dolomite in the Maquoketa Group, was completed in 1934 to a depth of 192 ft by P. E. Millis, Byron. This well is maintained for emergency use.

The well is located (b) (9) [redacted] The land surface elevation at the well is approximately 835 ft.

A summary sample study log of Well No. 2 furnished by the State Geological Survey follows:

Strata	*Thickness (ft)*	*Depth (ft)*
PLEISTOCENE SYSTEM		
Wisconsin stage		
Gravel, sandy, oxidized, brown	5	5
Gravel, up to 1/2 in., sandy	5	10
Gravel, granular, sandy	5	15
Gravel, up to 1/4 in., sandy	15	30
Gravel, granular	5	35
Till, calcareous, maroon (Marengo)	30	65
Till, calcareous, pinkish-gray, tan	5	70
Quartzitic fragments, boulder	2	72
Till, as above	48	120
Same, gravelly	10	130
Illinoian (?) stage		
Till, calcareous, light brown	15	145
ORDOVICIAN SYSTEM		
Maquoketa shale		
Shale, light greenish-gray	5	150
Dolomite, crystalline, pyritic, white	40	190

The well is cased with 12-in. pipe from land surface to a depth of 150 ft.

In September 1955, after pumping at a rate of 74 gpm, the drawdown was 23.3 ft from a nonpumping water level of 47.5 ft.

In July 1958, the well reportedly produced 150 gpm for 6 min with a drawdown of 86 ft from a nonpumping water level of 50 ft below the pump base.

The pumping equipment presently installed consists of a 10-hp U.S. electric motor, an 8-in., 5-stage Layne turbine pump set at 150 ft, rated at 150 gpm at about 150 ft TDH, and has 150 ft of 5-in. column pipe. A 10-ft section of 4-in. suction pipe is attached to the pump intake.

The following mineral analysis made by the Illinois Environmental Protection Agency (Lab. No. C006008) is for a water sample from the well collected February 5, 1976, after 15 min of pumping at 150 gpm. The iron content has been as low as 0.1 on a previous analysis.

WELL NO. 2, LABORATORY NO. C006008

		mg/l	me/l			mg/l	me/l
Iron	Fe	4.3		Silica	SiO_2	9.5	
Manganese	Mn	0.01		Fluoride	F	0.6	0.03
Ammonium	NH_4	0.98	0.05	Boron	B	0.7	
Sodium	Na	26	1.13	Nitrate	NO_3	0.6	0.01
Potassium	K	5.8	0.15	Chloride	Cl	2	0.06
Calcium	Ca	38	1.90	Sulfate	SO_4	0	0.00
Magnesium	Mg	26	2.14	Alkalinity (as $CaCO_3$)		276	5.52
Arsenic	As	0.000					
Barium	Ba	0.3		Hardness (as $CaCO_3$)		209	4.18
Copper	Cu	0.02					
Cadmium	Cd	0.00		Total dissolved minerals		276	
Chromium	Cr	0.00					
Lead	Pb	0.01					
Mercury	Hg	0.0000		pH (as rec'd)	8.1		
Nickel	Ni	0.0		Radioactivity			
Selenium	Se	0.00		Alpha *pc/l*	1.6		
Silver	Ag	0.00		±deviation	1.0		
Cyanide	CN	0.00		Beta *pc/l*	8.6		
Zinc	Zn	0.01		±deviation	1.6		

WELL NO. 3, finished in sand and gravel, was completed in March 1962 to a depth of 80 ft by the J. P. Miller Artesian Well Co., Brookfield. The well is located (b) (9) [redacted]. The land surface elevation at the well is approximately 832 ft.

A drillers log of Well No. 3 follows:

Strata	Thickness (ft)	Depth (ft)
Top soil	3	3
Sand	12	15
Sand and gravel	65	80

A 30-in. diameter hole was drilled to a depth of 80 ft. The well is cased with 12-in. wrought iron pipe from land surface to a depth of 60 ft followed by 20 ft of 12-in. No. 90 slot Cook stainless steel screen. The annulus between the bore hole and the casing-screen assembly is filled with clay and bentonite from 0 to 50 ft and with gravel from 50 to 80 ft.

Upon completion, the well reportedly produced 350 gpm for 3 hr with a drawdown of 4 ft from a nonpumping water level of 6 ft below the top of the casing.

In July 1969, after 10 min of pumping at a rate of 450 gpm, the drawdown was 3 ft from a nonpumping water level of 10 ft.

In 1970, the nonpumping water level was reported to be 20 ft.

The pumping equipment presently installed is a 10-in., 5-stage Byron Jackson oil-lubricated turbine pump (Serial No. 700229, Size 10 GL-5-STG) set at 40 ft, rated at 350 gpm at about 200 ft head, and powered by a 30-hp 1800 rpm U.S. electric motor (Serial No. 3385012).

The following mineral analysis made by the Illinois Environmental Protection Agency (Lab. No. C006009) is for a water sample from the well collected February 5, 1976, after 1 hr of pumping at 450 gpm. Hydrogen sulfide has been apparent on previous samples.

WELL NO. 3, LABORATORY NO. C006009

		mg/l	me/l			mg/l	me/l
Iron	Fe	2.1		Silica	SiO_2	12.0	
Manganese	Mn	0.08		Fluoride	F	0.4	0.02
Ammonium	NH_4	0.58	0.03	Boron	B	0.4	
Sodium	Na	18	0.78	Nitrate	NO_3	1.3	0.02
Potassium	K	2.6	0.07	Chloride	Cl	32	0.90
Calcium	Ca	84	4.19	Sulfate	SO_4	75	1.56
Magnesium	Mg	40	3.29	Alkalinity (as $CaCO_3$)		302	6.04
Arsenic	As	0.002					
Barium	Ba	0.1		Hardness (as $CaCO_3$)		378	7.56
Copper	Cu	0.00					
Cadmium	Cd	0.00		Total dissolved minerals		428	
Chromium	Cr	0.00					
Lead	Pb	0.00					
Mercury	Hg	0.0000		pH (as rec'd)	7.8		
Nickel	Ni	0.0		Radioactivity			
Selenium	Se	0.00		Alpha *pc/l*	0.2		
Silver	Ag	0.00		±deviation	0.8		
Cyanide	CN	0.00		Beta *pc/l*	4.0		
Zinc	Zn	0.01		±deviation	1.7		

WALKUP WOODS SUBDIVISION

Walkup Woods Subdivision (est. 385), located 1 mile north of Crystal Lake, installed a public water supply in 1959. The water system is owned and operated by the Walkup Woods Water Co. of Utilities, Inc., and also furnishes water to Walkup Highlands and Upland Acres Subdivisions. One well (No. 1) is in use and another well (No. 2) is available for emergency use. In 1960 there were 20 services, few metered. In 1973 there were 90 services, all metered; the average and maximum daily pumpages were 66,000 and 75,000 gpd, respectively. The water is chlorinated and treated with polyphosphate to keep iron in solution.

WELL NO. 1, finished in sand and gravel, was completed in November 1956 to a depth of 272 ft by the Henry Boysen Co., Libertyville. The well is located (b) (9) [redacted] The land surface elevation

house floor to a depth of 124 ft followed by 11 ft of 8-in. No. 25 slot Johnson Everdur screen.

Upon completion, the well reportedly produced 200 gpm for 8 hr with a drawdown of 15 ft from a nonpumping water level of 40 ft.

In 1965, the pump started to pump air, so the well was acidized, and the pump lowered from 80 to 110 ft.

The pumping equipment presently installed is a 6-in., 5-stage Sta-Rite turbine pump (Model No. 6MoH5STG, Serial No. 016499) set at 110 ft, rated at 90 gpm, and powered by a 15-hp 3600 rpm U.S. electric motor (Serial No. 2545739).

A drillers log of Well No. 2 follows:

Strata	*Thickness (ft)*	*Depth (ft)*
Top soil and brown clay	18	18
Clay and gravel	22	40
Mushy sand and clay	30	70
Hard gravel and clay	28	98
Fine dirty sand	12	110
Fine sand clean	10	120
Clean coarse gravel	15	135

The following mineral analysis made by the Illinois Environmental Protection Agency (Lab. No. 03956) is for a water sample from the well collected January 29, 1972.

WELL NO. 2, LABORATORY NO. 03956

		mg/l	*me/l*			*mg/l*	*me/l*
Iron	Fe	3.0	0.11	Silica	SiO_2	14.5	
Manganese	Mn	0.0		Fluoride	F	0.8	0.04
Ammonium	NH_4	0.5	0.03	Boron	B	0.3	
Sodium	Na	24		Nitrate	NO_3	0.0	
Potassium	K	1.0	0.03	Chloride	Cl	1.0	0.03
Calcium	Ca	40	2.00	Sulfate	SO_4	0	
Magnesium	Mg	27.5	2.26	Alkalinity (as $CaCO_3$)		256	5.12
Barium	Ba	0.0		Hardness (as $CaCO_3$)		204	
Copper	Cu	0.0		Total dissolved minerals		230	
Cadmium	Cd	0.00		pH (as rec'd)		7.7	
Chromium	Cr	0.0		Radioactivity			
Lead	Pb	0.00		Alpha *pc/l*		1	
Mercury	Hg	<0.0005		±deviation		1	
Nickel	Ni	0.0		Beta *pc/l*		0	
Silver	Ag	0.0		±deviation		1	
Zinc	Zn	0.0					

MARENGO

The city of Marengo (4235) installed a public water supply in 1893. Two wells (Nos. 4 and 5) are in use. This supply is also cross connected with the Arnold Engineering Co. well. In 1949 there were 700 services; the average daily pumpage was 300,000 gpd. In 1973 there were 1177 services, all metered; the average and maximum daily pumpages were 390,000 and 780,000 gpd, respectively. The water is fluoridated.

WELL NO. 1, finished in sand and gravel, was completed in 1893 to a depth of 15 ft. This well was abandoned and filled to the land surface in 1938. The well was located at the northeast corner of Telegraph Road and State St., approximately 57 ft N and 70 ft E of the SW corner of Section 25, T44N, R5E. The land surface elevation at the well is approximately 810 ft.

A drillers log of Well No. 1 follows:

Strata	*Thickness (ft)*	*Depth (ft)*
Black soil and clay	3	3
Sand and gravel	12	15

A 20-ft diameter hole was dug to a depth of 15 ft. The well was lined with brick and concrete (1.5 ft thickness) from 1.5 ft above land surface to a depth of 15 ft.

A production test using three observation wells was conducted by the Randolph-Perkins Co., Chicago, on May 27, 1924. After 6.6 hr of pumping at rates of 154 to 171 gpm, the final pumping level was 12.89 ft.

A second production test using three observation wells was conducted on November 12-13, 1924. After 9.5 hr of pumping at rates of 150 to 157 gpm, the final drawdown was 6.19 ft from a nonpumping water level of 7.00 ft below land surface.

WELL NO. 2, finished in sand and gravel, was completed in 1925 to a depth of 21 ft (measured in July 1947 at 20.6 ft deep). This well was abandoned and filled in 1962. The well was located about 70 ft northeast of Well No. 1, approximately 100 ft N and 130 ft E of the SW corner of Section 25, T44N, R5E. The land surface elevation at the well is approximately 810 ft.

A drillers log of Well No. 2 follows:

Strata	*Thickness (ft)*	*Depth (ft)*
Black soil and clay	3	3
Sand and gravel	18	21

A 25-ft diameter hole was dug to a depth of 21 ft. The well was lined with brick and concrete (1 ft in thickness) from 1 ft above land surface to a depth of 21 ft. This well was originally connected to Well No. 1 by a 4-in. pipe laid about 15 ft below land surface.

In August 1946, following a period of drought, the water level was lowered to the bottom of the well after pumping at a rate of 450 gpm for 1 hr. After a 15-min idle period, the water level recovered to its normal level.

On July 15, 1947, the well reportedly produced 150 gpm for 3 hr with a drawdown of 4.4 ft from a nonpumping water level of 7.3 ft below land surface.

A mineral analysis of a sample (Lab. No. 111091) collected July 15, 1947, after pumping for 3 hr at 150 gpm, showed the water to have a hardness of 378 mg/l, total dissolved minerals of 412 mg/l, and an iron content of 0.2 mg/l.

WELL NO. 3 (formerly Borden Milk Co. well), open to the Cambrian-Ordovician aquifer, was completed in May 1951 to a depth of 1028 ft by the Varner Well and Pump Co., Dubuque, Iowa. This well is not in use because of a pump failure and a high hydrogen sulfide. The well is located on North Sponable St. south of West Railroad St., approximately 960 ft S and 1540 ft W of the NE corner of Section 35, T44N, R5E. The land surface elevation at the well is approximately 817 ft.

A correlated sample study log of Well No. 3 furnished by the State Geological Survey follows:

Strata	*Thickness (ft)*	*Depth (ft)*
QUATERNARY SYSTEM		
Pleistocene Series		
Till and outwash	190	190
ORDOVICIAN SYSTEM		
Galena Dolomite Group	185	375
Platteville Dolomite Group	110	485
Ancell Group		
Glenwood Formation	155	640
St. Peter Sandstone	65	705
CAMBRIAN SYSTEM		
Eminence Dolomite	25	730
Potosi Dolomite	60	790
Franconia Formation	75	865
Ironton Sandstone	90	955
Galesville Sandstone	65	1020
Eau Claire Formation	8	1028

A partial record shows that a 17.2-in. diameter hole was drilled between the depths of 181.5 and 538 ft, and finished 12 in. in diameter from 538 to 1028 ft. The well is cased with 20-in. ID pipe from 4 ft below land surface to a depth of 70 ft, 18-in. OD pipe from land surface to a depth of 182 ft, and 12-in. OD pipe from 2 ft above land surface to a depth of 538 ft (cemented in).

On May 1, 1951, after 4 hr of pumping at a rate of 508 gpm, the drawdown was 109 ft from a nonpumping water level of 90 ft below the top of the casing.

On April 30, 1958, the well reportedly produced 300 gpm for 10 min with a drawdown of 61 ft from a nonpumping water level of 116 ft below the pump base.

On February 10, 1976, the well reportedly produced 500 gpm for 4 hr with a drawdown of 133 ft from a nonpumping water level of 145 ft.

The pumping equipment presently installed consists of a 50-hp 1760 rpm Louis Allis electric motor (No. 2366144), a Layne and Bowler turbine pump (No. 23294) set at 270 ft, and has 270 ft of column pipe. The well is equipped with 270 ft of airline.

A partial analysis of a sample (Lab. No. 201080) collected February 10, 1976, after pumping for 4 hr at 500 gpm, showed the water to have a hardness of 352 mg/l, total dissolved minerals of 373 mg/l, and an iron content of 0.8 mg/l. Hydrogen sulfide also was apparent when the sample was collected.

WELL NO. 4, finished in sand and gravel, was completed in January 1962 to a depth of 100 ft by the J. P. Miller Artesian Well Co., Brookfield. The well is located (b) (9) [redacted]. The land surface elevation at the well is approximately 805 ft.

A drillers log of Well No. 4 follows:

Strata	*Thickness (ft)*	*Depth (ft)*
Top soil	2	2
Sand	20	22
Sand and gravel	10	32
Sand and clay	28	60
Clay	5	65
Sand, gravel, and boulders	35	100

A 30-in. diameter hole was drilled to a depth of 100 ft. The well is cased with 12-in. pipe from land surface to a depth of 75 ft followed by 25 ft of 12-in. No. 90 slot Cook stainless steel screen. The top of the well casing is equipped with a 16-in. diameter pitless adapter. The annulus between the bore hole and casing-screen assembly is filled with sand and bentonite from 0 to 50 ft and with gravel from 50 to 100 ft.

A production test was conducted by the driller on January 4-5, 1962. After 23.1 hr of pumping at rates of 400 to 1000 gpm, the drawdown was 49 ft from a nonpumping water level of 3 ft below land surface.

The pumping equipment presently installed consists of a 40-hp 1750 rpm Byron Jackson electric motor, a 10-in., 5-stage Byron Jackson submersible pump set at 65 ft, rated at 500 gpm at about 210 ft head, and has 60 ft of 6-in. column pipe. The well is equipped with 65 ft of airline.

A partial analysis of a sample (Lab. No. 201081) collected February 10, 1976, after pumping for 0.3 hr at 400 gpm, showed the water to have a hardness of 416 mg/l, total dissolved minerals of 484 mg/l, and an iron content of 2.6 mg/l.

WELL NO. 5, finished in sand and gravel, was completed in March 1962 to a depth of 85 ft by the J. P. Miller Artesian Well Co., Brookfield. The well is located (b) (9) [redacted]. The land surface elevation at the well is approximately 810 ft.

A drillers log of Well No. 5 follows:

Strata	*Thickness (ft)*	*Depth (ft)*
Top soil	5	5
Sand	10	15
Gravel	70	85

A 30-in. diameter hole was drilled to a depth of 85 ft. The well is cased with 12-in. wrought iron pipe from within a concrete foundation block to a depth of 60 ft followed by 25 ft of 12-in. No. 40 slot Cook screen. The annulus between the bore hole and casing-screen assembly is filled with sand and bentonite from 0 to 50 ft and with silica gravel from 50 to 85 ft.

A production test was conducted by the driller on March 9, 1962. After 15 hr of pumping at rates of 350 to 1010 gpm, the final drawdown was 47 ft from a nonpumping water level of 6 ft below the top of the casing.

On January 17, 1975, the nonpumping water level was reported to be 18 ft.

The pumping equipment presently installed consists of a 40-hp 1750 rpm U.S. Holloshaft electric motor, a 10-in., 5-stage Byron Jackson turbine pump set at 40 ft, rated at 500 gpm at about 210 ft head, and has 40 ft of 6-in. column pipe. The well is equipped with 40 ft of airline.

The following mineral analysis made by the Illinois Environmental Protection Agency (Lab. No. B120113) is for a water sample from the well collected January 6, 1975, after 1 hr of pumping at 530 gpm.

WELL NO. 5, LABORATORY NO. B120113

		mg/l	me/l			mg/l	me/l
Iron	Fe	0.6		Silica	SiO_2	13	
Manganese	Mn	0.2		Fluoride	F	0.1	0.00
Ammonium	NH_4	0.1	0.01	Boron	B	0.1	
Sodium	Na	19	0.83	Nitrate	NO_3	3.3	0.05
Potassium	K	2.3	0.06	Chloride	Cl	60	1.69
Calcium	Ca	89	4.44	Sulfate	SO_4	70	1.46
Magnesium	Mg	41	3.37	Alkalinity (as $CaCO_3$)		288	5.76
Arsenic	As	0.00					
Barium	Ba	0.1		Hardness (as $CaCO_3$)		390	7.80
Copper	Cu	0.00					
Cadmium	Cd	0.00		Total dissolved minerals		441	
Chromium	Cr	0.00					
Lead	Pb	0.00					
Mercury	Hg	0.0003		pH (as rec'd)	7.6		
Nickel	Ni	0.0		Radioactivity			
Selenium	Se	0.00		Alpha *pc/l*	1.4		
Silver	Ag	0.00		± deviation	1.9		
Cyanide	CN	0.00		Beta *pc/l*	0.3		
Zinc	Zn	0.0		± deviation	1.9		

PISTAKEE HIGHLANDS SUBDIVISION

Pistakee Highlands Subdivision (est. 1630), located 0.5 mile northeast of Sunnyside, installed a public water supply in 1954. The water system is owned and operated by the Pistakee Highlands Water Co. of Utilities, Inc. One well (No. 2) is in use and another well (No. 1) is maintained for emergency use. This supply is cross connected with the Whispering Hills Water Co. In 1955 there were 90 services, all metered. In 1973 there were 480 services, all metered; the estimated average and maximum daily pumpages were 63,000 and 95,000 gpd, respectively. The water is chlorinated and treated with polyphosphate to keep iron in solution.

WELL NO. 1, finished in sand and gravel, was completed in September 1954 to a depth of 93 ft by Joseph Huemann & Sons, McHenry. This well is maintained for emergency use. The well is located (b) (9) [redacted] The land surface elevation at the well is approximately 780 ft.

A drillers log of Well No. 1 follows:

Strata	*Thickness (ft)*	*Depth (ft)*
Sand and gravel	27	27
Red clay and stones	9	36
Clay	19	55
Sandy clay	6	61
Clay and stones	7	68
Sticky sand	19	87
Gravel	6	93

A 12-in. diameter hole was drilled to a depth of 93 ft. The well is cased with 12-in. pipe from 1.2 ft above the pumphouse floor to a depth of 83 ft followed by 10 ft of 12-in. No. 18 slot Johnson Everdur stainless steel screen.

Upon completion, the well reportedly produced 250 gpm for 12 hr with a drawdown of 10 ft from a nonpumping water level of 43 ft below the pump base.

Nonpumping water levels were reported to be 44 ft in February 1961, and 41.80 ft below land surface on October 23, 1964.

The pumping equipment presently installed is a Deming submersible pump set at 80 ft, rated at 50 gpm, and powered by a 25-hp 3600 rpm U.S. electric motor (Model No. A132520-2, Serial No. 1316715).

The following mineral analysis made by the Illinois Environmental Protection Agency (Lab. No. 03539) is for a water sample from the well collected December 30, 1971, after 30 min of pumping.

WELL NO. 1, LABORATORY NO. 03539

		mg/l	me/l			mg/l	me/l
Iron	Fe	0.1	0.00	Silica	SiO_2	24	
Manganese	Mn	0.0		Fluoride	F	0.4	0.02
Ammonium	NH_4	0.0		Boron	B	0.0	
Sodium	Na	11.4	0.50	Nitrate	NO_3	0.0	
Potassium	K	0.9	0.02	Chloride	Cl	7.5	0.21
Calcium	Ca	72	3.59	Sulfate	SO_4	55	1.14
Magnesium	Mg	44	3.62	Alkalinity (as $CaCO_3$)		296	5.92
Barium	Ba	0.0		Hardness (as $CaCO_3$)		356	
Copper	Cu	0.0		Total dissolved minerals		380	
Cadmium	Cd	0.00					
Chromium	Cr	0.0		pH (as rec'd)	7.7		
Lead	Pb	0.00		Radioactivity			
Mercury	Hg	<0.0005		Alpha *pc/l*	0		
Nickel	Ni	0.0		± deviation	1		
Silver	Ag	0.0		Beta *pc/l*	0		
Zinc	Zn	0.0		± deviation	2		

WELL NO. 2, finished in sand and gravel, was completed in September 1956 to a depth of 202 ft by Joseph Huemann & Sons, McHenry. The well is located (b) (9) [redacted] The land surface elevation at the well is approximately 782 ft.

A drillers log of Well No. 2 follows: